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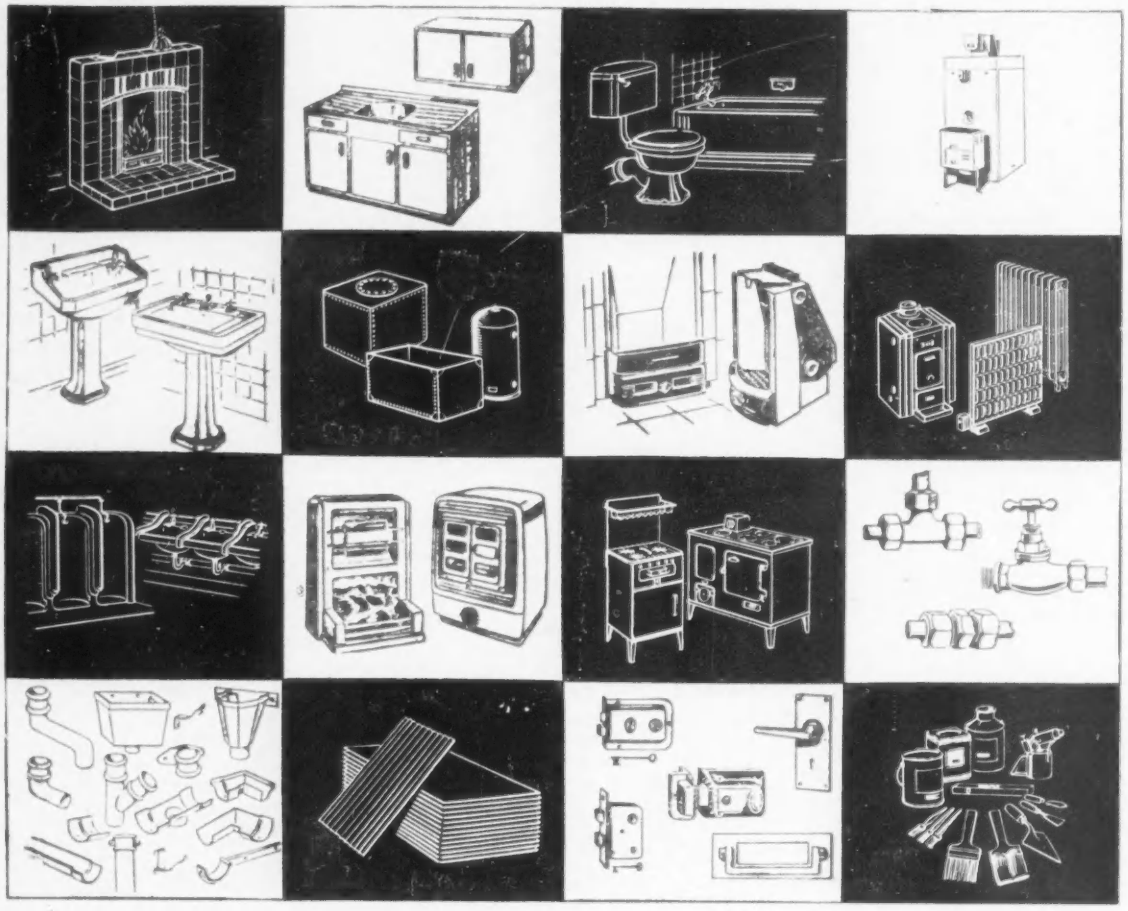

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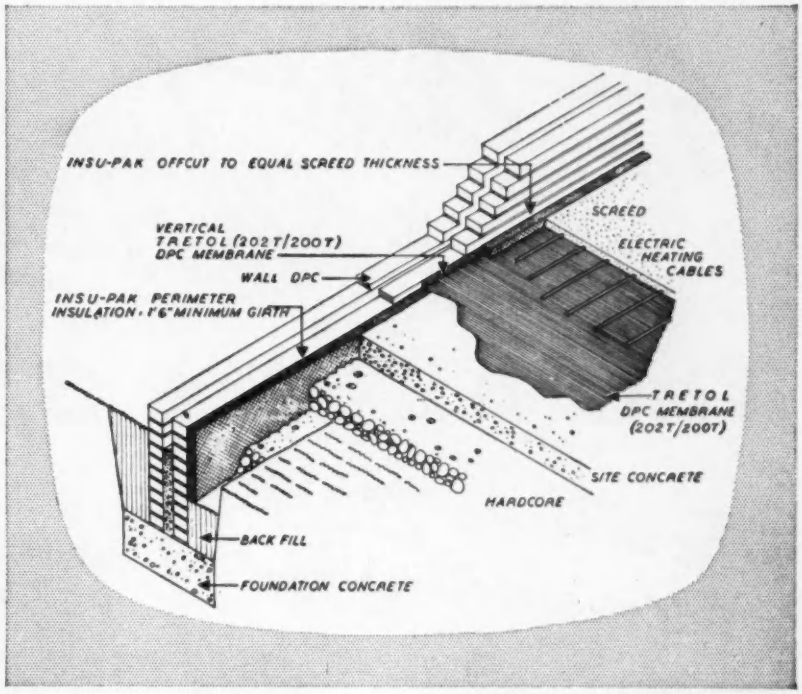

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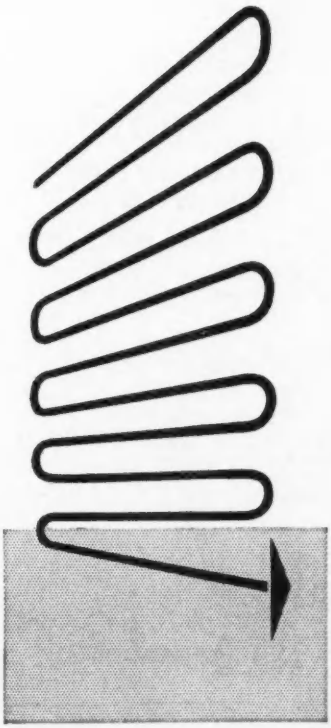

* *The diagram illustrates a typical use of standard Tretol Cold-Applied Bitumen Membrane combined with "INSU-PAK Perimeter Insulation". INSU-PAK is a product of Tretol-Servicised Ltd. and is designed to insulate ground floor slab and screed from vertical concrete and brickwork.*

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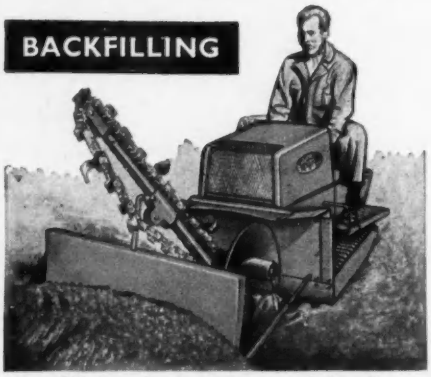

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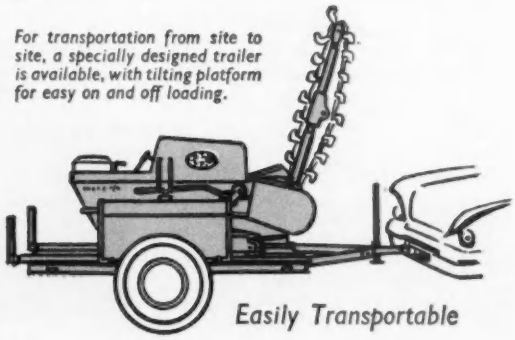

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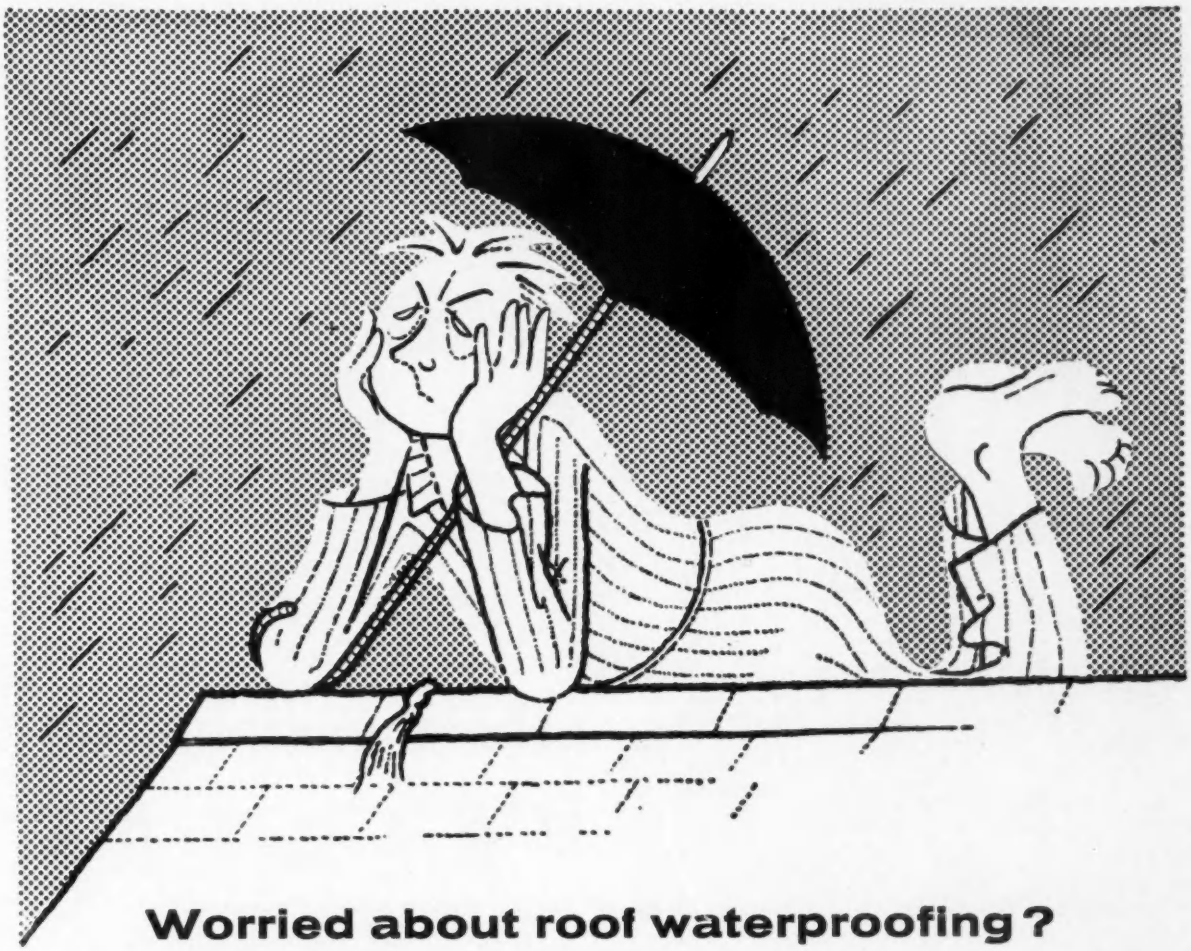

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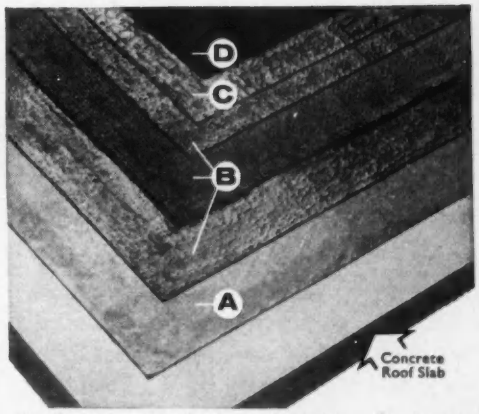

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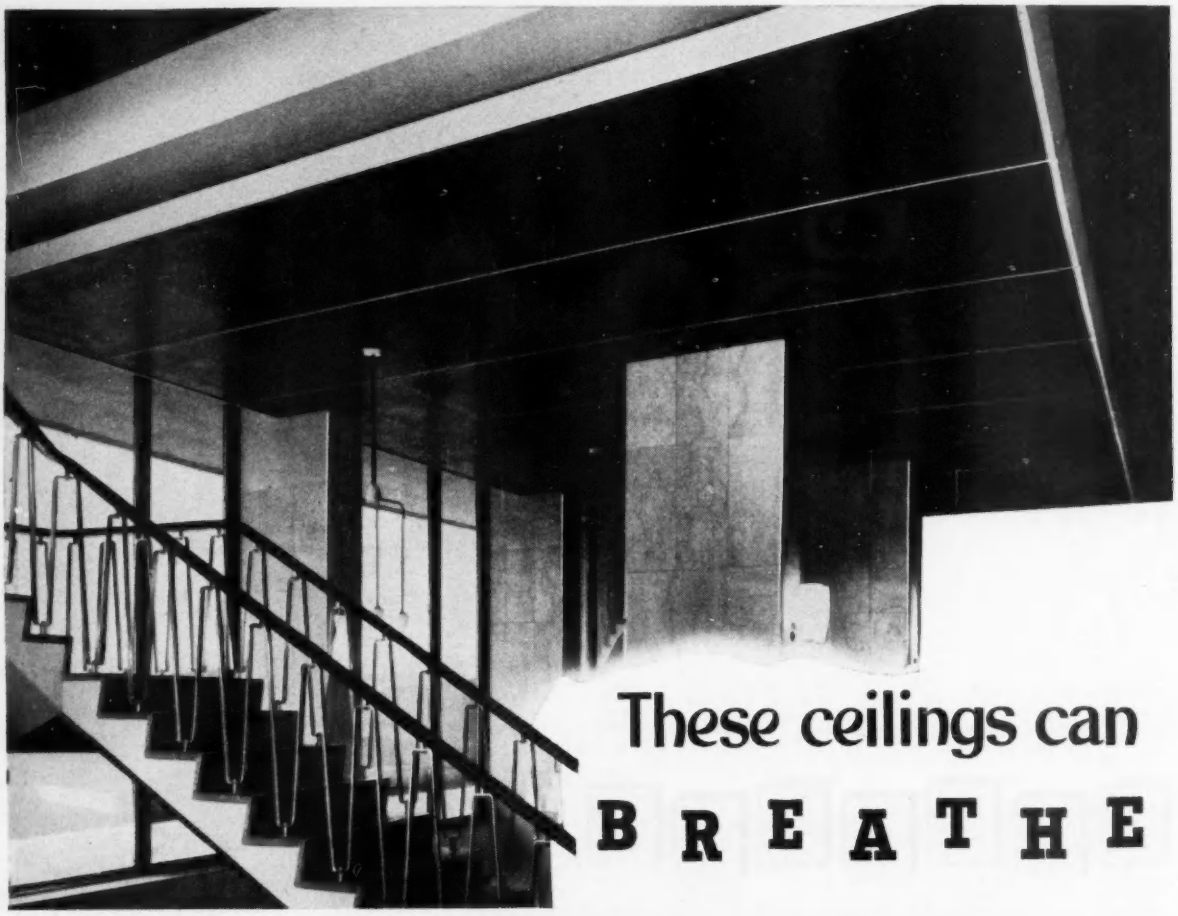

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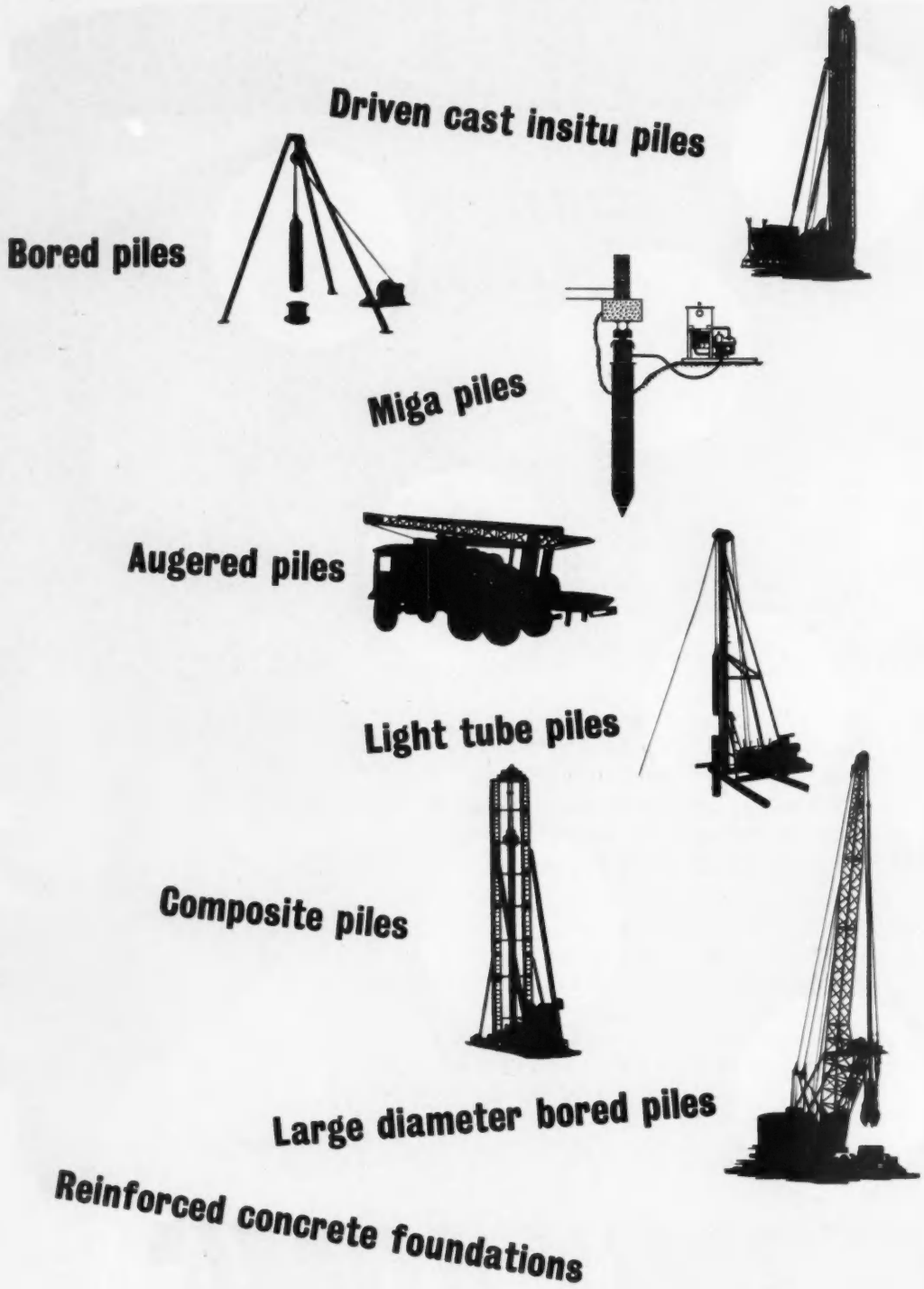

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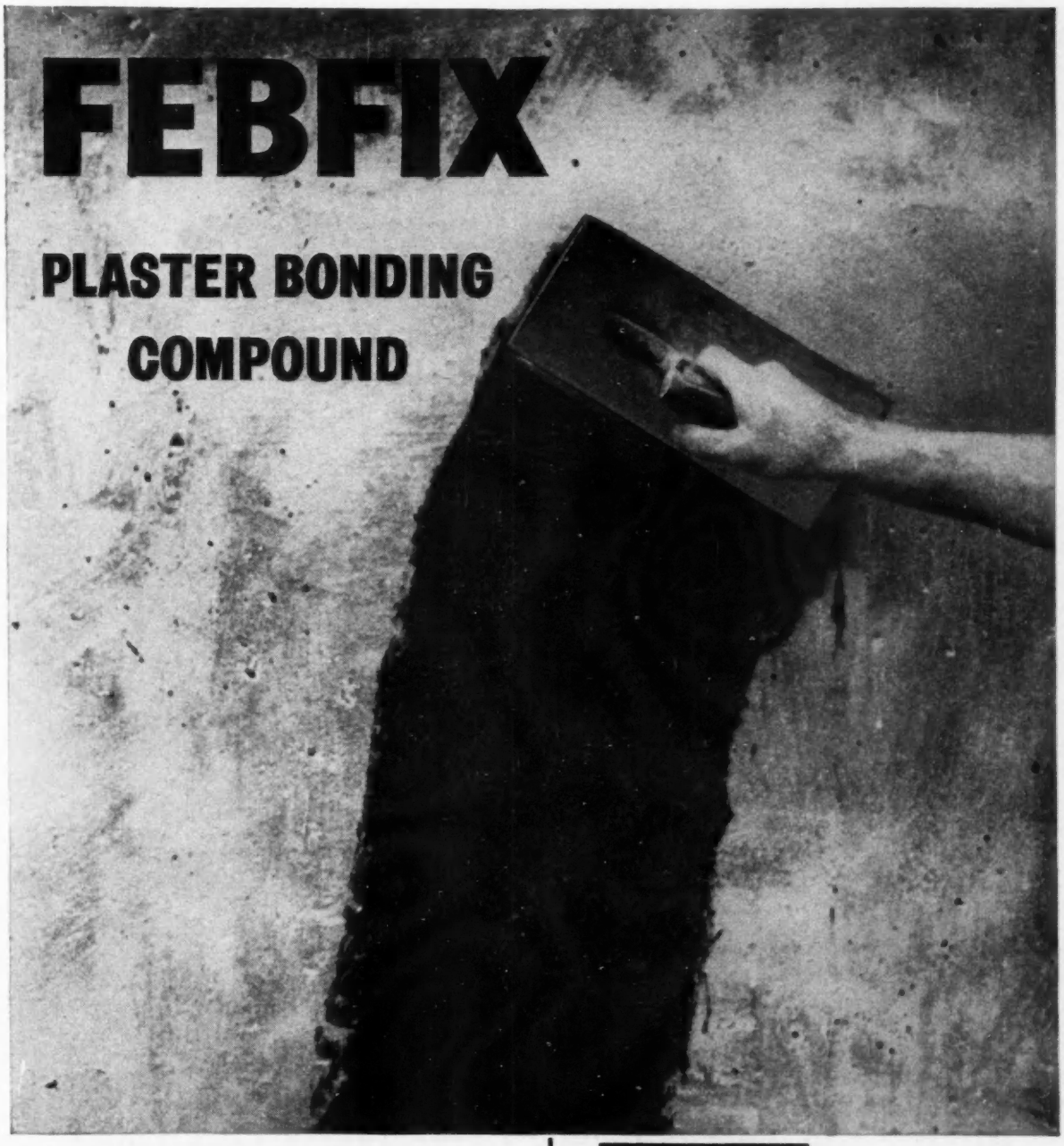

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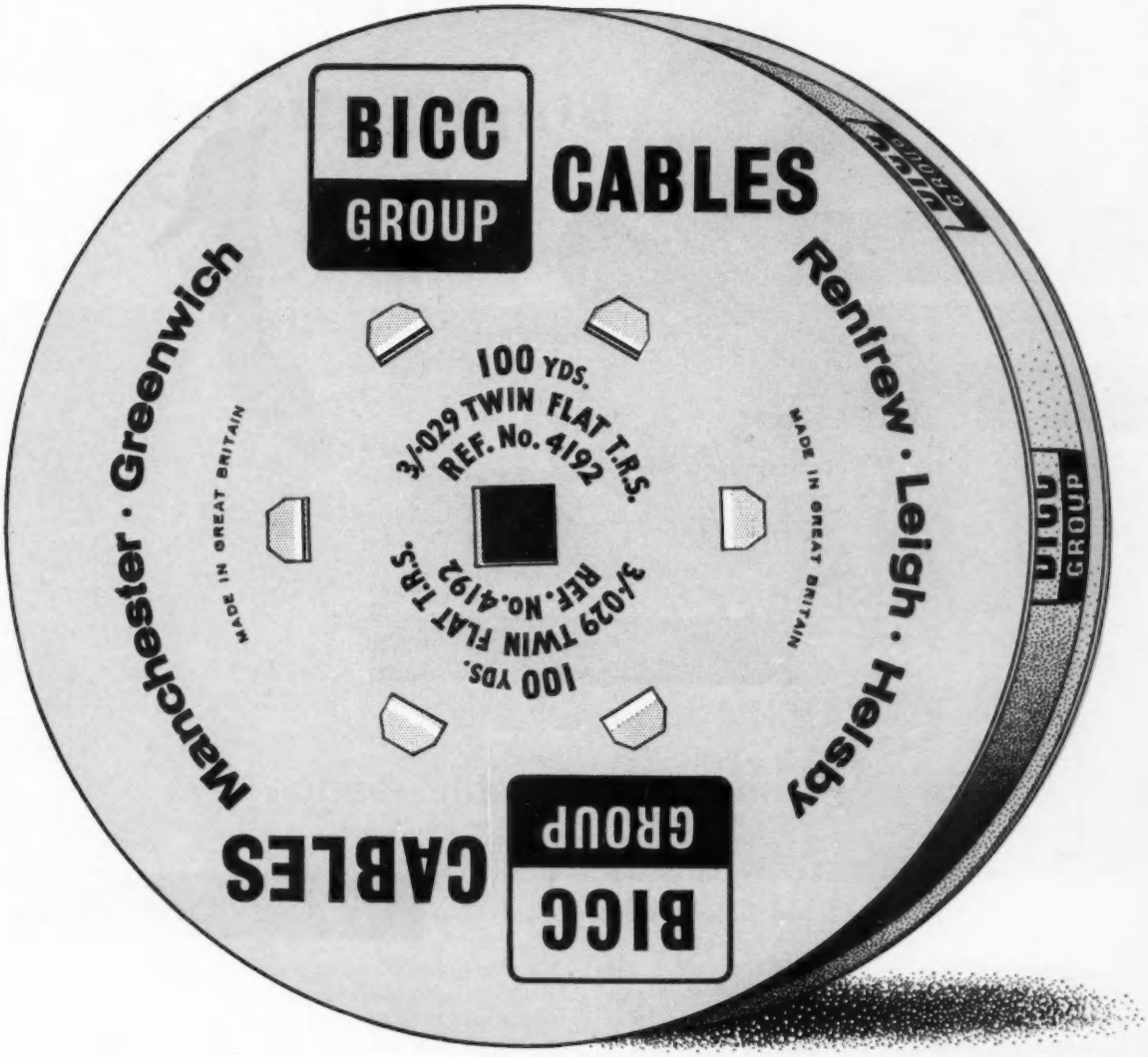

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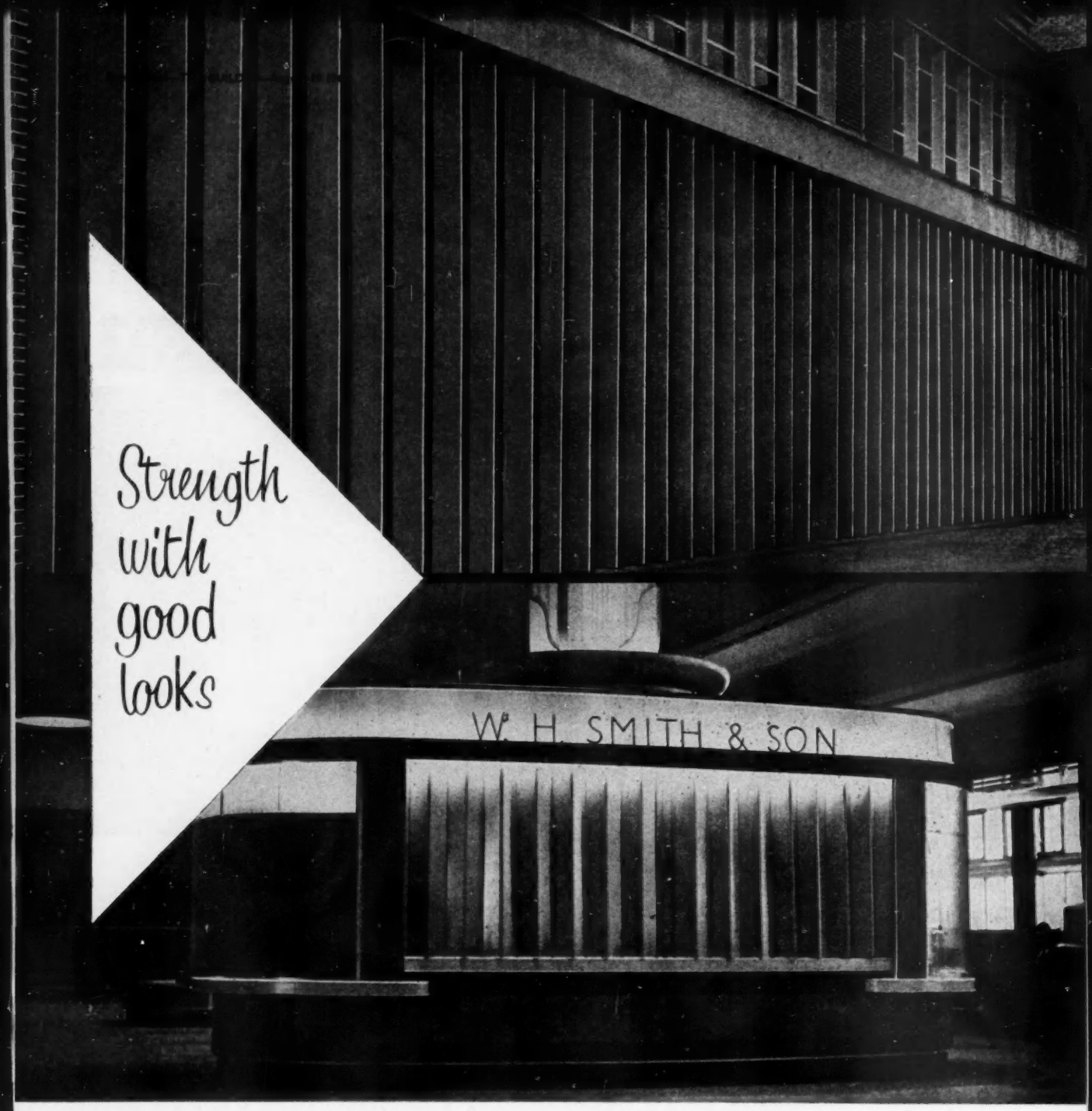

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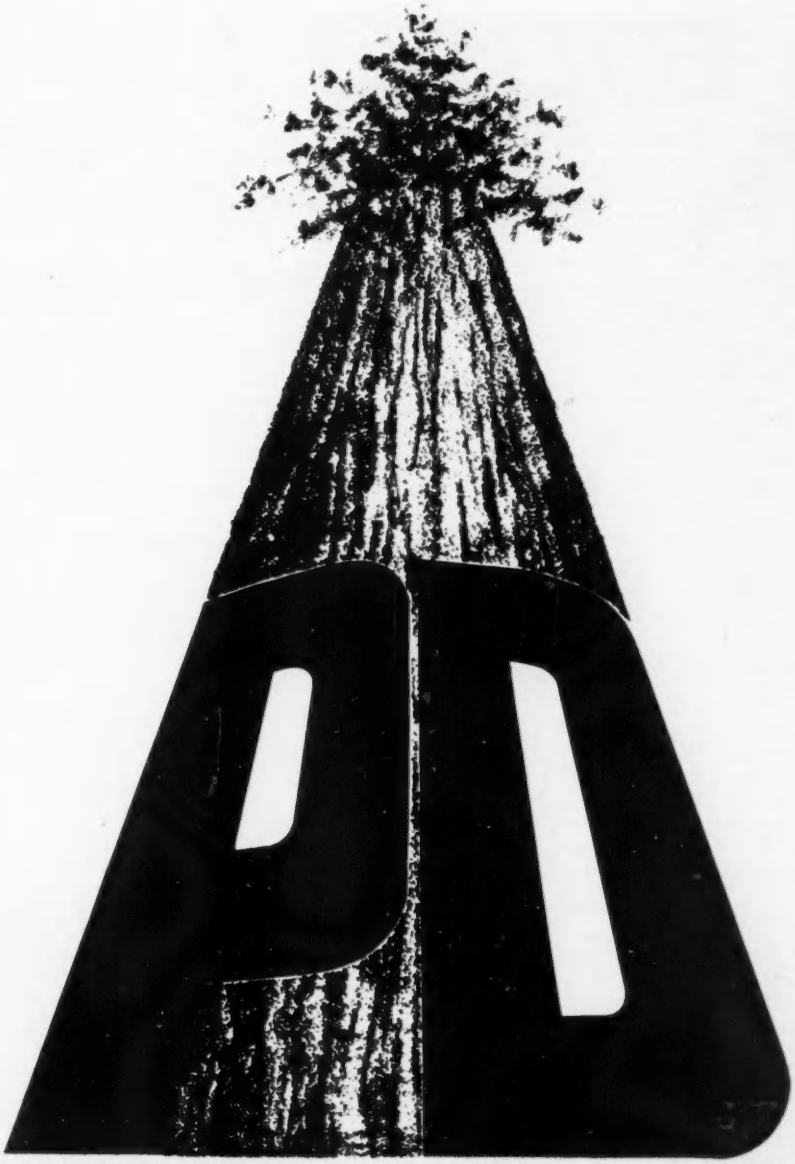

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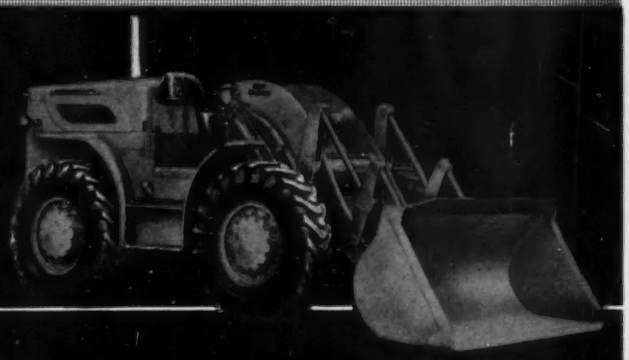

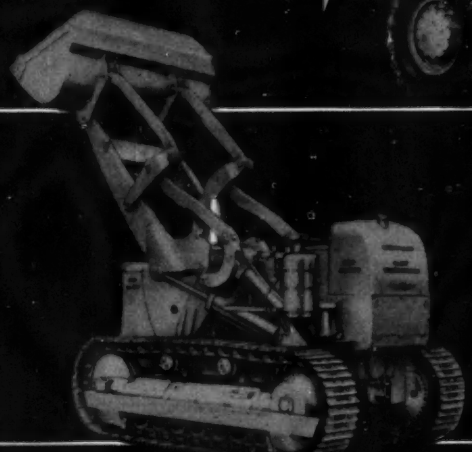

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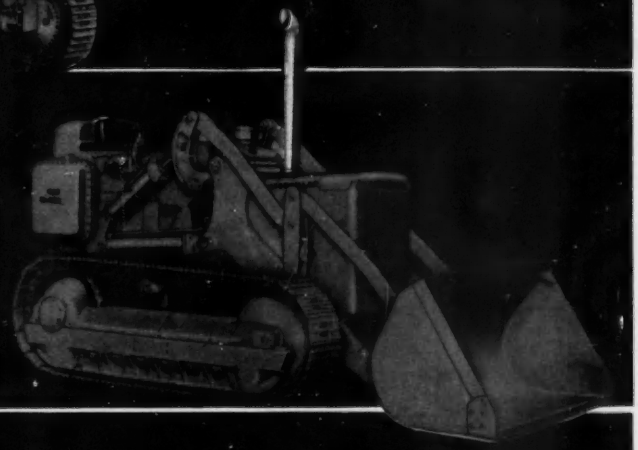

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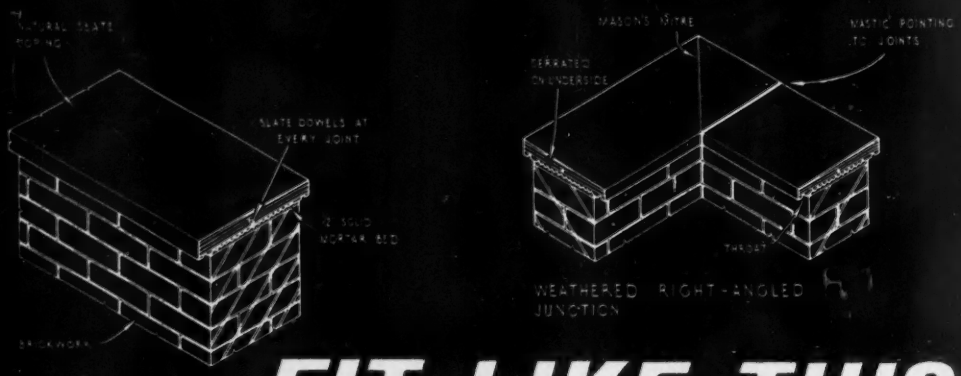

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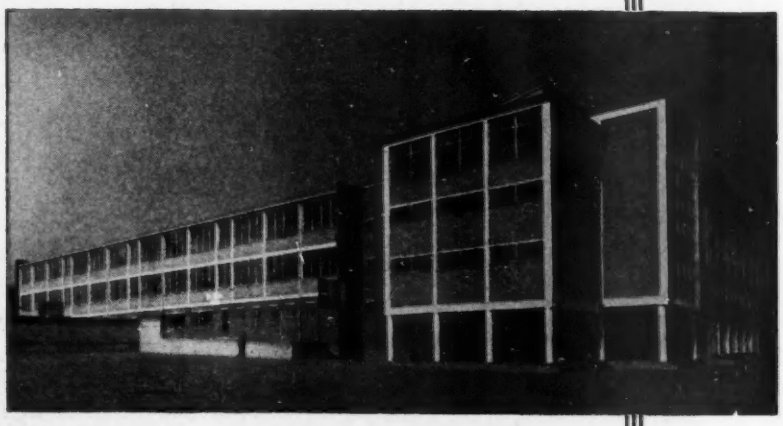

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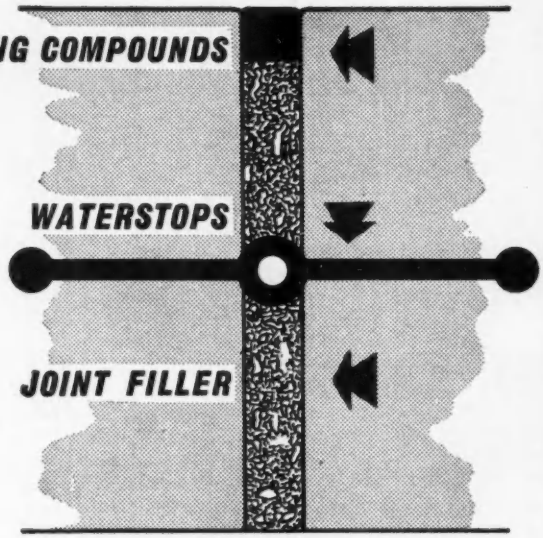

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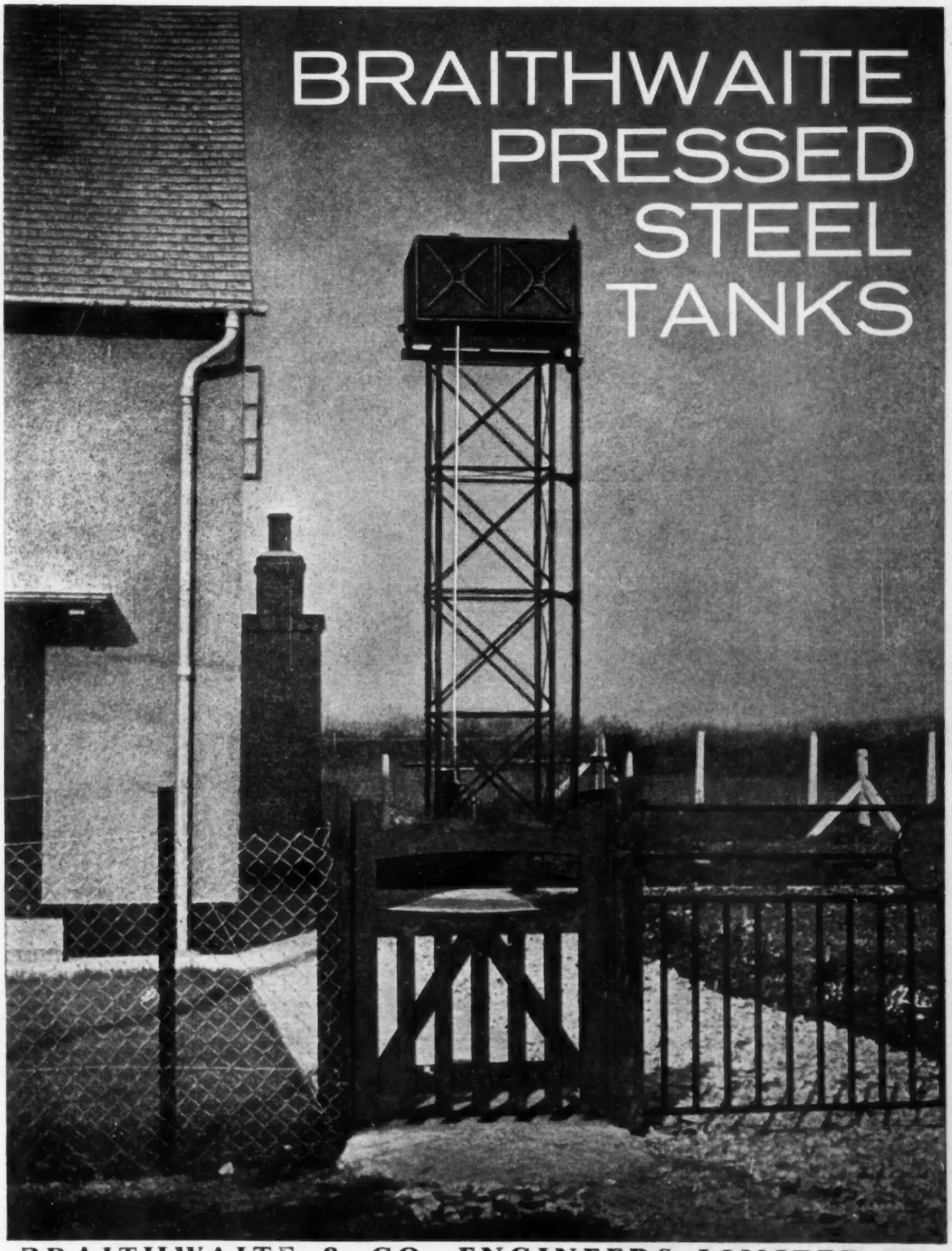

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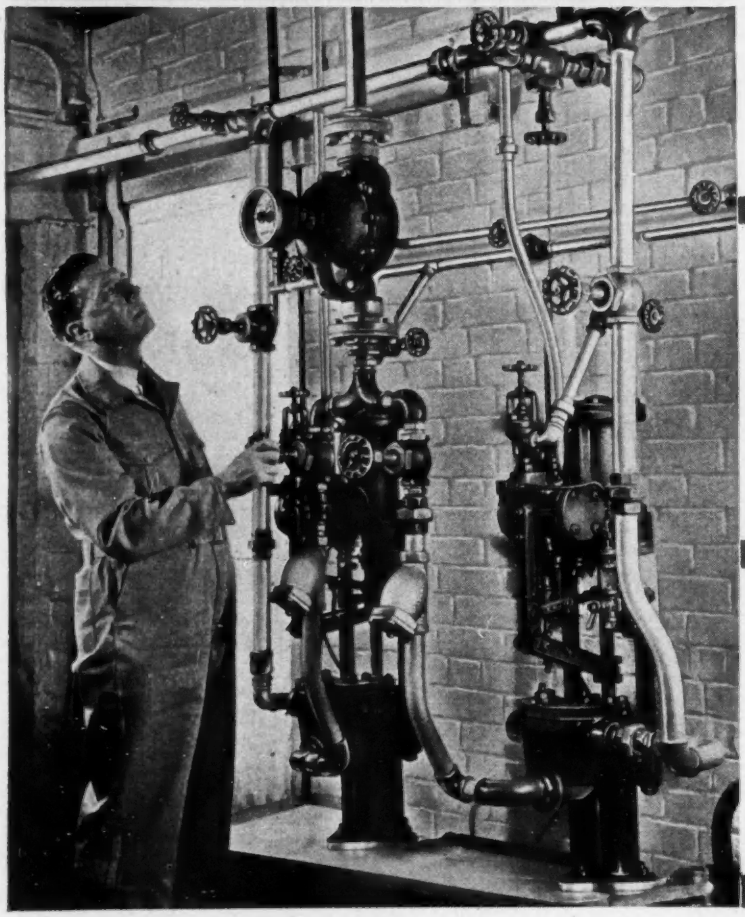
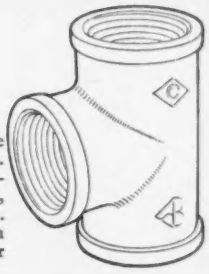
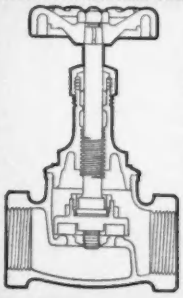




No. 161 Malleable Iron Banded Tee. Sizes (equal and reducing) ⅛" to 6", black or galvanised. Screwed British Standard taper threads.



D.5. Bronze Globe Valve. An important feature is the Crane composition disc which is easily removed for renewal. Sizes, with screwed hexagon ends, ¼" to 2". Working pressures: saturated steam up to 125 pounds; cold services up to 200 pounds. Flanged valves also available.

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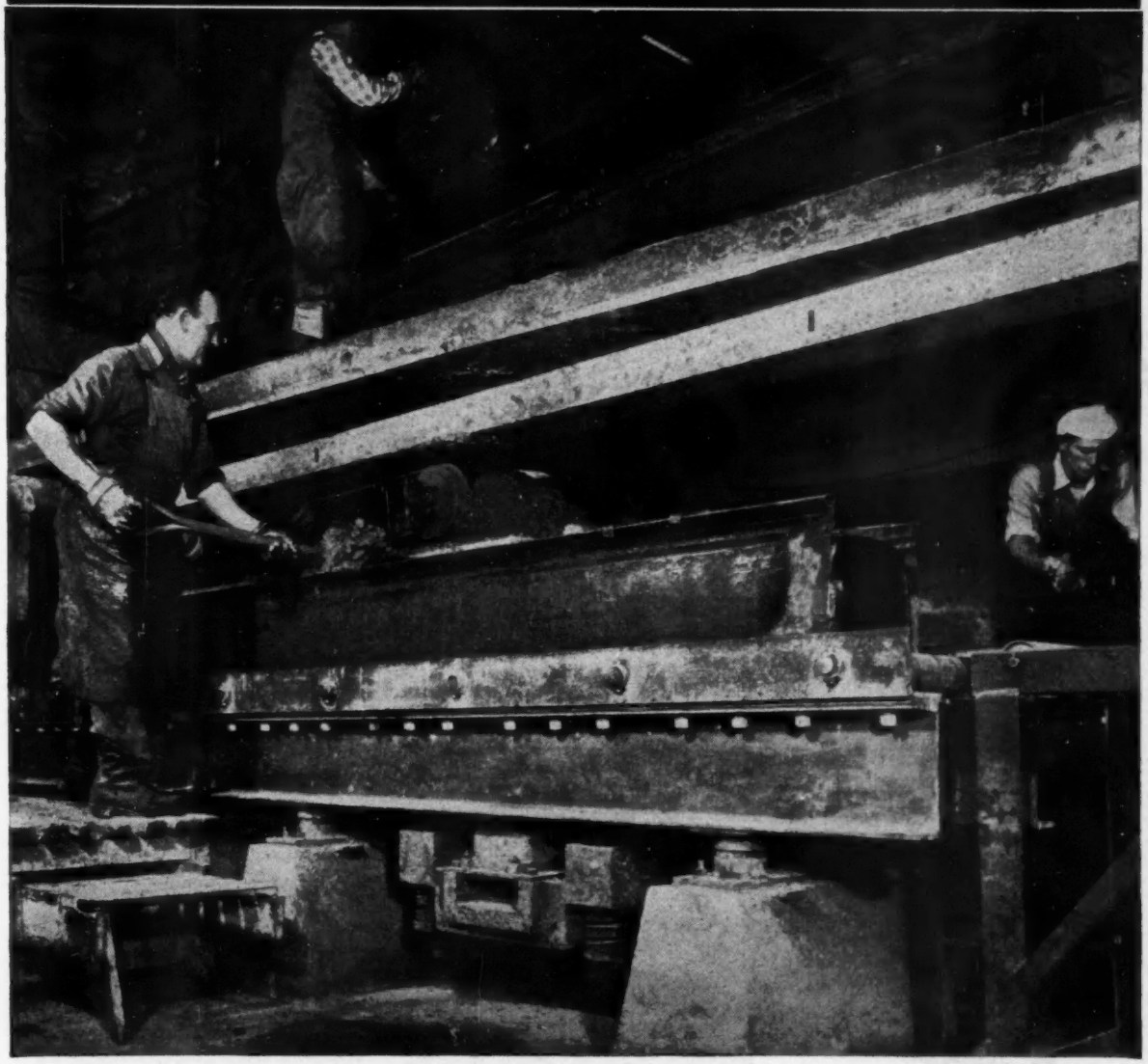

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- The ideal vibrator for pre-cast concrete.

rely on the experience of G.E.C.

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* *Specify and use it as the underlay for Mastic Asphalte Roofs and Floors.*

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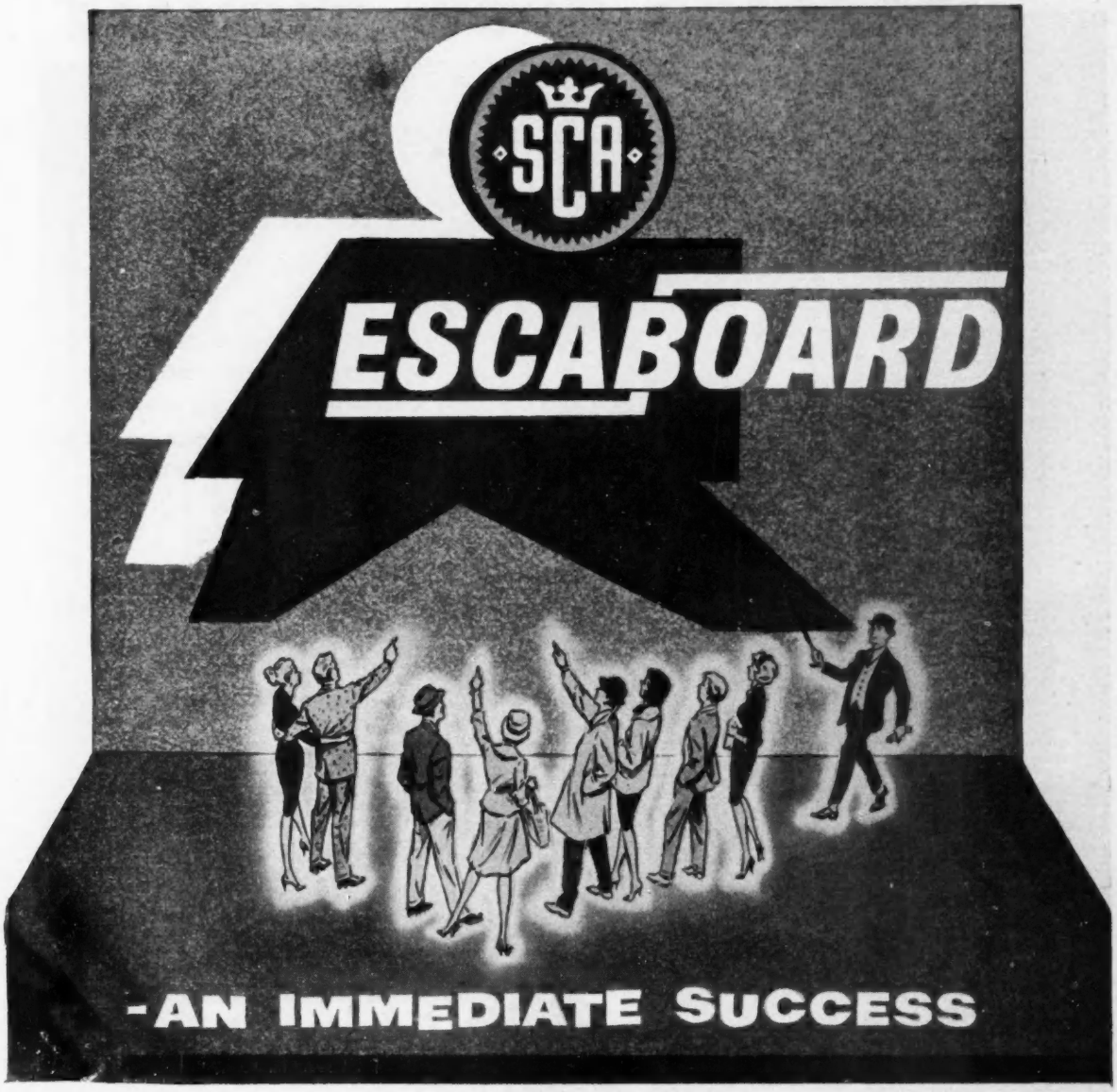

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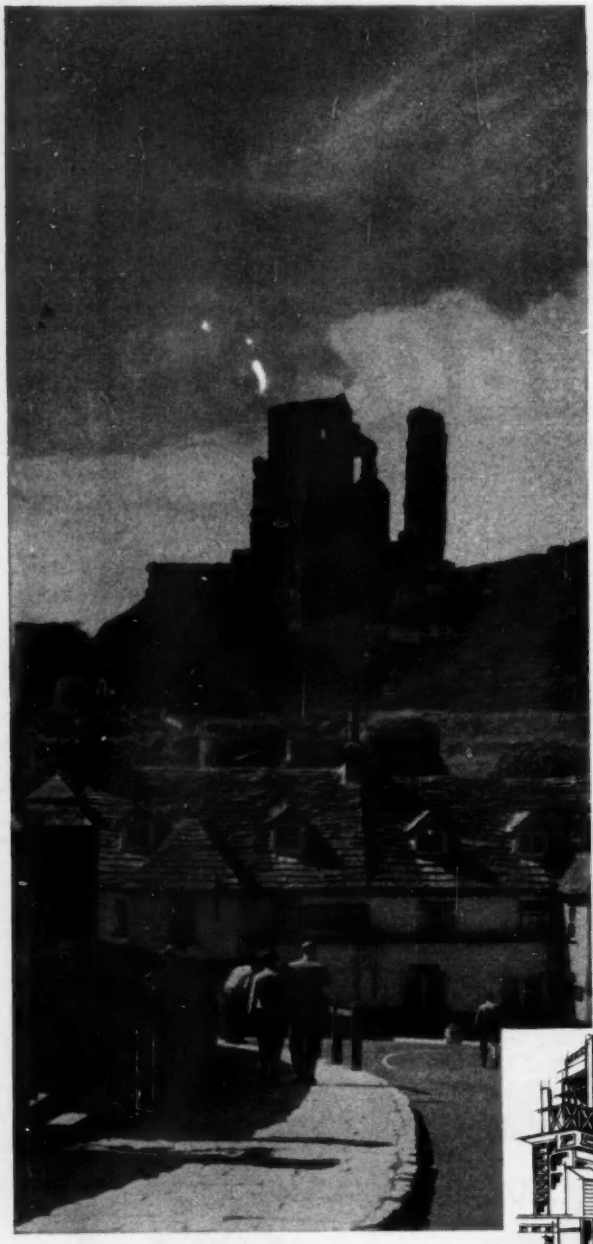

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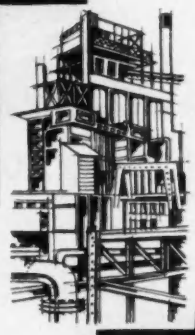
Modern industrial plants are subjected to much fiercer corrosive conditions than the mere atmospheric erosion which Corfe Castle has experienced over the centuries.
Drynamels range of Maintenance Paints includes specialised products designed to withstand every form of corrosive agent likely to be encountered in industry today.

Drynamels make it their business to keep abreast of every technical paint development for the field of industry. Call us in on your problems and leave the rust to us!

Overlooking the attractive village of Corfe in Dorset is one of the most interesting and impressive ruins in Southern England. It was built by King John and was one of the last strongholds to fall during the Civil War.



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'Gas fired boilers?

—JUST GIVE ME

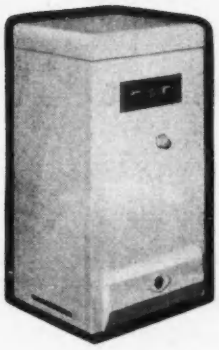
the facts'

This is what YOU want to know about IBR boilers

All iron pipework is contained within the one unit—no need even to take screwing tackle on the job. The whole installation can be done in copper.

Pump, time clock and all controls ready fitted and wired inside the boiler case—no electric wiring to do—just plug in.

Absolutely independent of flue draught—no installation problems. Complete customer satisfaction—when you have sold an International boiler your customer himself will sell two or three more for you! A job you can do more quickly, at a keener price and far neater because everything is contained within the boiler case.



The Economatic
will provide ample hot water for daily use and heat up to 140 sq. ft. of radiators. In boiler case is contained ThermoPak accelerator, electrically operated time clock, selector switches, temperature control governor, flame failure device, gas cocks, etc. From 85 gns. plus radiators as required.

The Aristomatic
provides full domestic hot water supplies and heats up to 175 sq. ft. of radiators. Two separate heating outlets, one to bedrooms, etc. (night area) and the other living quarters and hall (day area). In-built controls automatically provide heat to the appropriate areas at the right time of day or night, thus achieving maximum comfort at a really low cost. From 105 gns. plus radiators as required.

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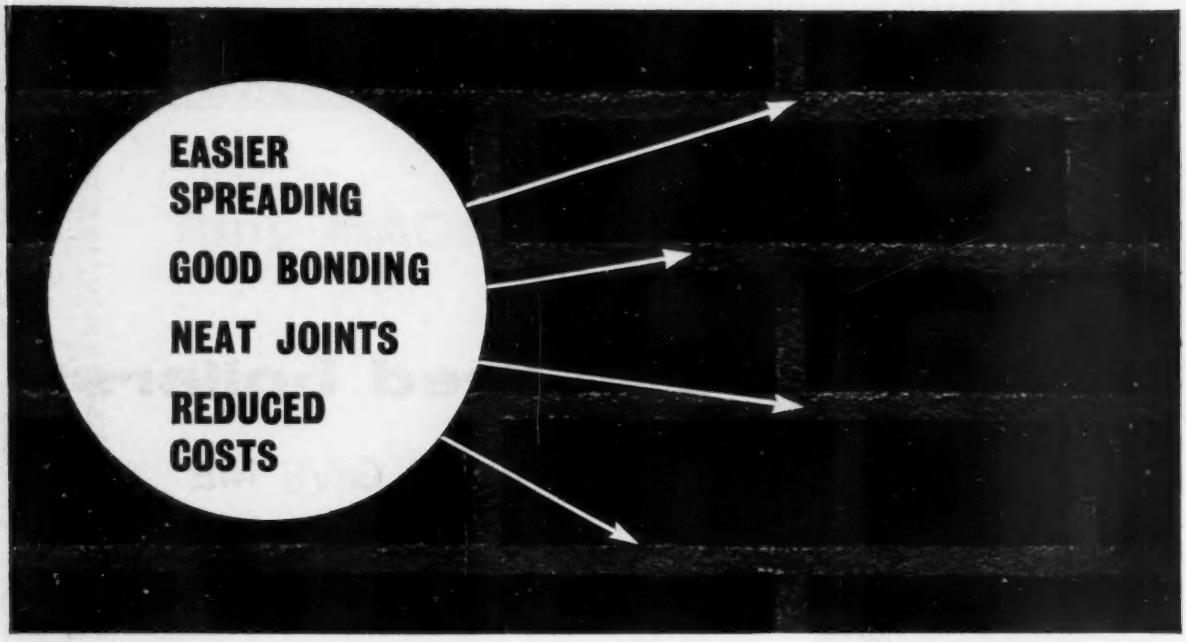

PLAZ non-detergent type **Mortar Plasticiser**

Mortar incorporating PLAZ, spreads MORE EASILY with LESS EFFORT. Crazing is minimised — and costs are reduced through the use of coarser sands, the reduction in water cement ratio, and easier spreading.

PLAZCRETE concrete plasticiser

specially compounded to produce a concrete mix of 100% EFFICIENCY!

IMPORTANT ADVANTAGES include:

★ **HIGH STRENGTH CONCRETE** at reduced cost, using less cement;
★ **LONGER HAULAGE TIMES** allowed for Mixing Trucks;
★ **SET RETARDED** — thus avoiding day joint problems;
★ **TIME SAVED** in placing and vibrating;
★ **IMPROVED WORKABILITY** for same water content;
★ **WATER-CEMENT RATIO** reduced;
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★ **BLEEDING and SEGREGATION** conquered;

The unique advantages of PLAZCRETE are VITAL to Ready-Mixed Concrete Suppliers, Contractors and Civil Engineers using Pumped Concrete.

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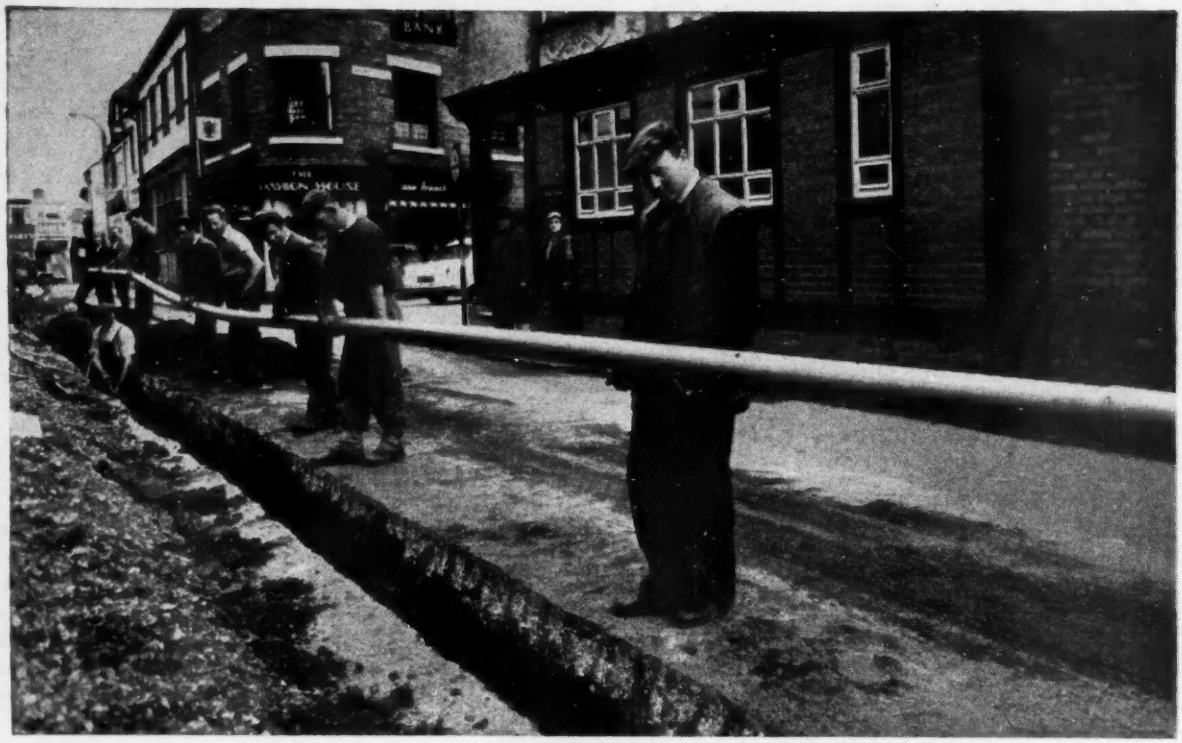


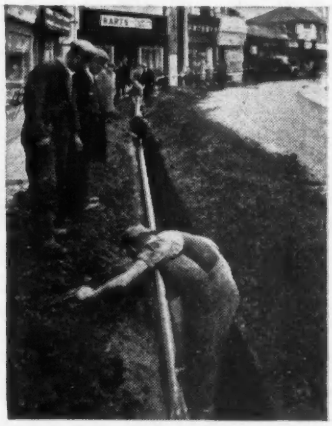
Water main made from 'Corvic' vinyl polymers by Chemidus Plastics Limited, Croydon, being laid already jointed by Mid and South East Cheshire Water Board, Engineer and Manager: Delwyn Davies, M.I.C.E., M.I.W.E.

When Chemidus Plastics Limited make water mains from p.v.c.

They make them from 'Corvic'

Another of the many uses of 'Corvic' vinyl polymers is piping for water mains. Chemidus Plastics Limited, Croydon, made the pipe line illustrated from 'Corvic'. The water main was ordered by The Mid and South East Cheshire Water Board to replace an existing one and p.v.c. was chosen to combat high corrosion and minimise damage from soil subsidence. In order to avoid any hold-up of traffic through the town centre, the pipe was jointed in a side street and the saddles placed in position. During the night the trench was dug in the High Street and when this had been completed, the line was carried to the site and lowered into the trench.

Like all users of 'Corvic' vinyl polymers, Chemidus Plastics Limited benefit from I.C.I. research and technical service, the finest of its kind in the country. You, too, can benefit from this service. I.C.I. will be glad to hear from you to discuss the uses and advantages of 'Corvic'.



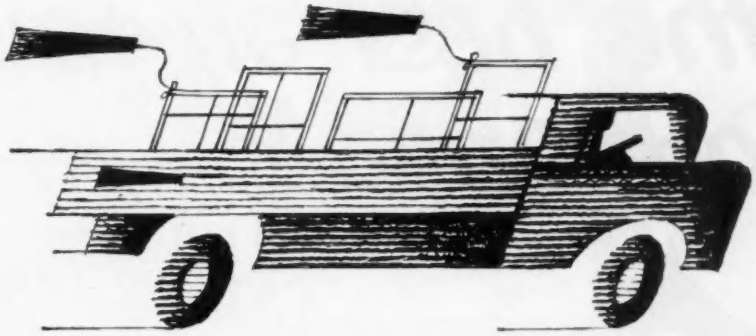
Water main made from 'Corvic'; the bend in the street was negotiated without the use of 'specials' as there was sufficient elasticity to allow for the fairly long-radius bends without any preforming of the pipe.

'CORVIC'

'Corvic' is the registered trade mark for the vinyl polymers manufactured by I.C.I.

ICI IMPERIAL CHEMICAL INDUSTRIES LIMITED · LONDON · S.W.1

PC44



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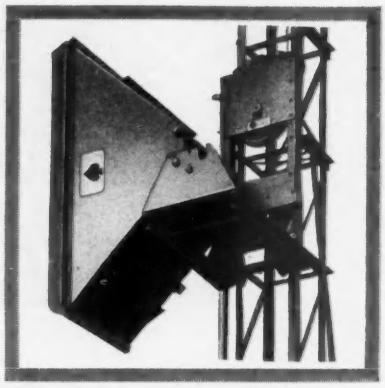

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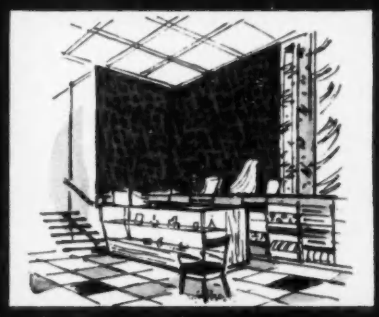
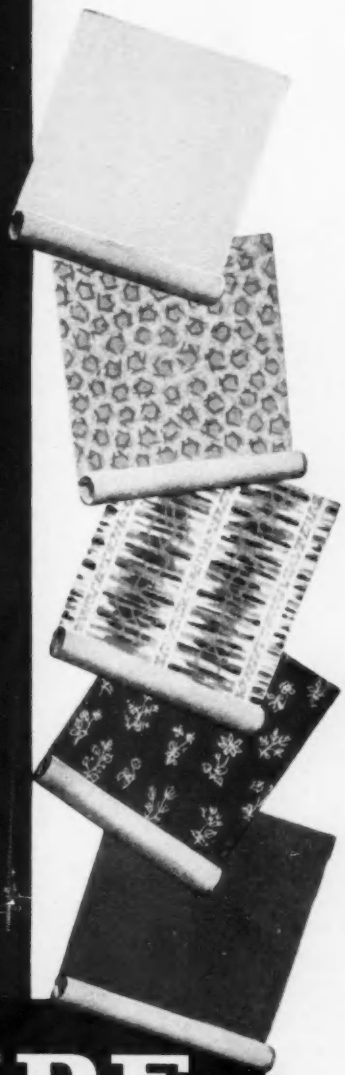


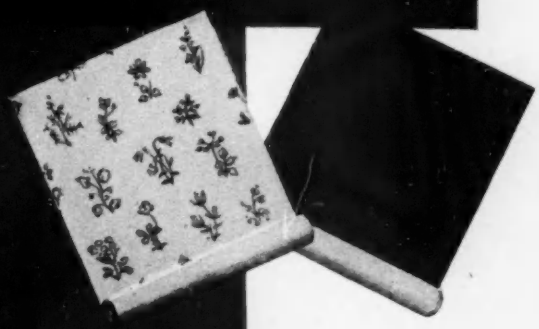
The quiet revolution

Whilst modern interior design has been making its unparalleled strides of recent years, a minor revolution has been taking place quietly in the background. This is the swing to vinyl as a wall covering. Now, with the introduction of Muralionide, this movement has gained rapidly in momentum. Muralionide is the first range of P.V.C. coated fabrics in the country to include patterns on large modular scales designed specifically for use as a wallcovering. It is most durable. Kicks, scratches and general wear and tear make little impression on its tough P.V.C. surface. Fabric-backed, Muralionide is chip-proof, peel-proof and washable. And the colours, fused in under high temperature, are resistant to fading. Yet practical as it is, Muralionide, with its matt finish and thick embossed texture, has the look and feel of luxury.



MURALIONIDE

vinyl wallcovering



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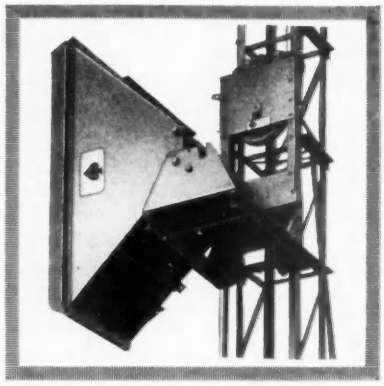

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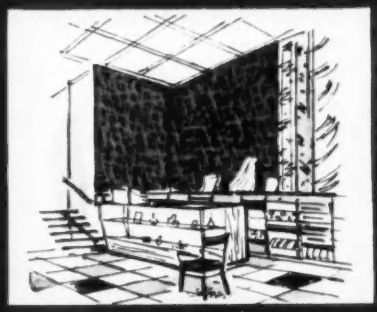
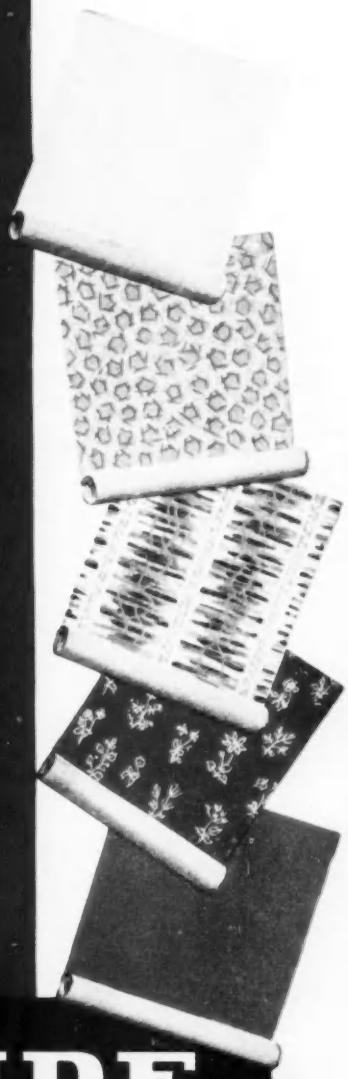


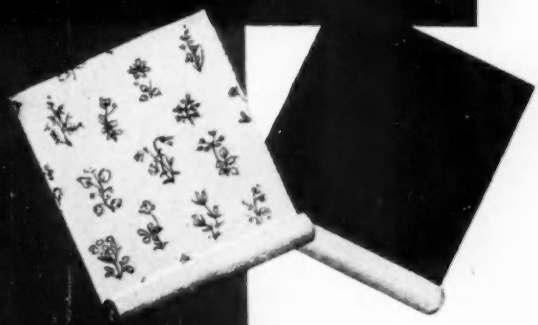
The quiet revolution

Whilst modern interior design has been making its unparalleled strides of recent years, a minor revolution has been taking place quietly in the background. This is the swing to vinyl as a wall covering. Now, with the introduction of Muralionide, this movement has gained rapidly in momentum. Muralionide is the first range of P.V.C. coated fabrics in the country to include patterns on large modular scales designed specifically for use as a wallcovering. It is most durable. Kicks, scratches and general wear and tear make little impression on its tough P.V.C. surface. Fabric-backed, Muralionide is chip-proof, peel-proof and washable. And the colours, fused in under high temperature, are resistant to fading. Yet practical as it is, Muralionide, with its matt finish and thick embossed texture, has the look and feel of luxury.



MURALIONIDE

vinyl wallcovering



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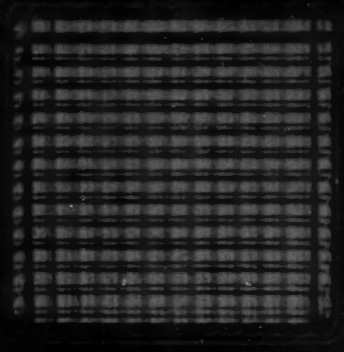
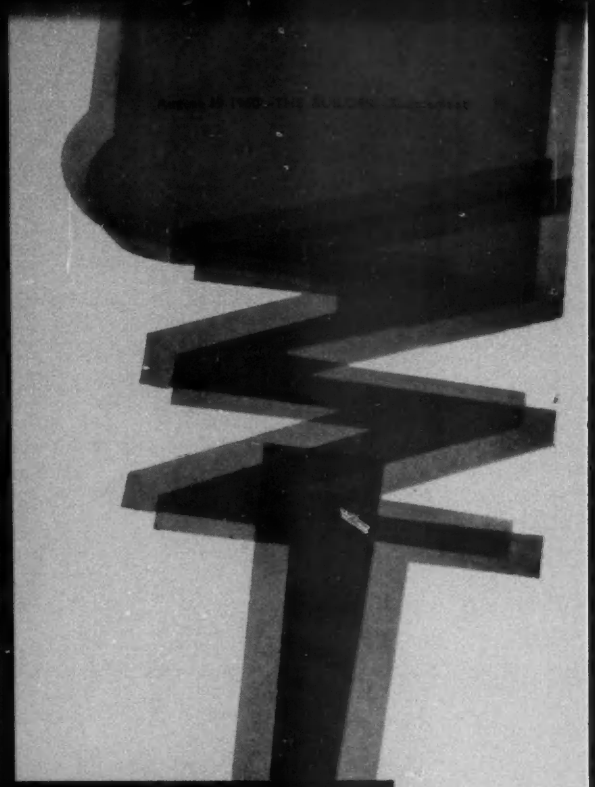
"INSULIGHT"

Hollow Glass Blocks



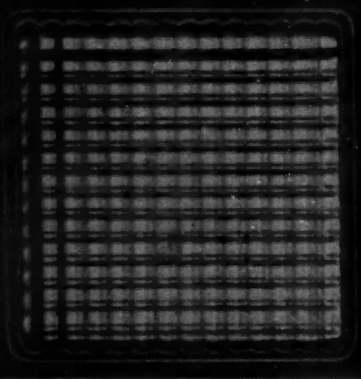


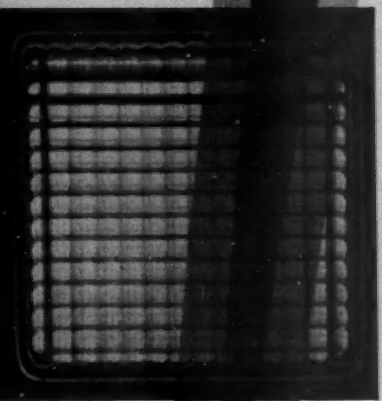
reduce sound by about 35-40 decibels in the range 100 to 3,200 c/s

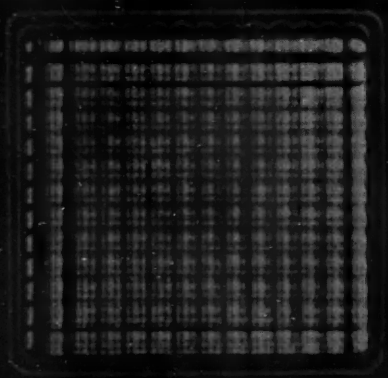
The equivalent to a reduction in sound from a busy London street to a quiet country garden is obtainable from "Insulight" Hollow Glass Blocks which have an average sound reduction value of 35-40 decibels in the range of 100 to 3,200 cycles per second.

Sound Insulation is just one of the properties of this versatile building material. Others are:—

Thermal Insulation · Fire Retardance
Good light transmission with diffusion

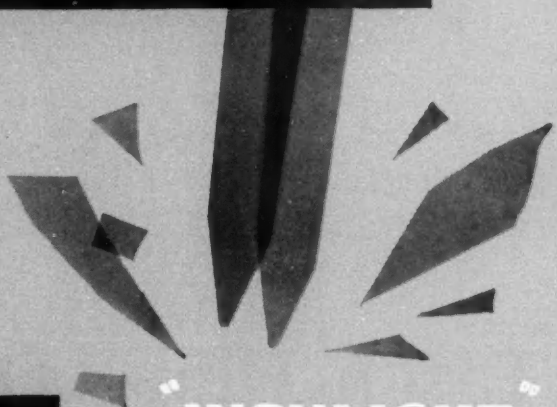




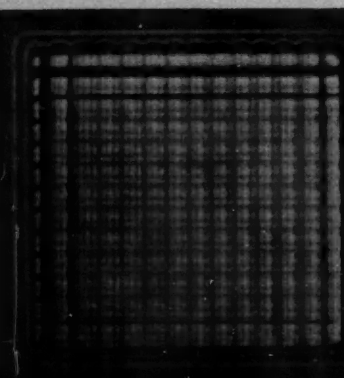


Privacy · Ease of construction
Reduction of glare
Little maintenance

Blocks are available in a range of attractive surface patterns, sizes and shapes. Further information is readily available from the Technical Sales and Service Department, St. Helens (telephone 4001) or Selwyn House, Cleveland Row, St. James's, London, S.W.1. (Whitehall 5672-6).



"INSULIGHT" *is a registered trade mark of Pilkington Brothers Ltd. Supplies are available through the usual trade channels.*



"INSULIGHT"

Hollow Glass Blocks

A UNIQUE MULTI-FUNCTIONAL MATERIAL

Pilkington Brothers Limited

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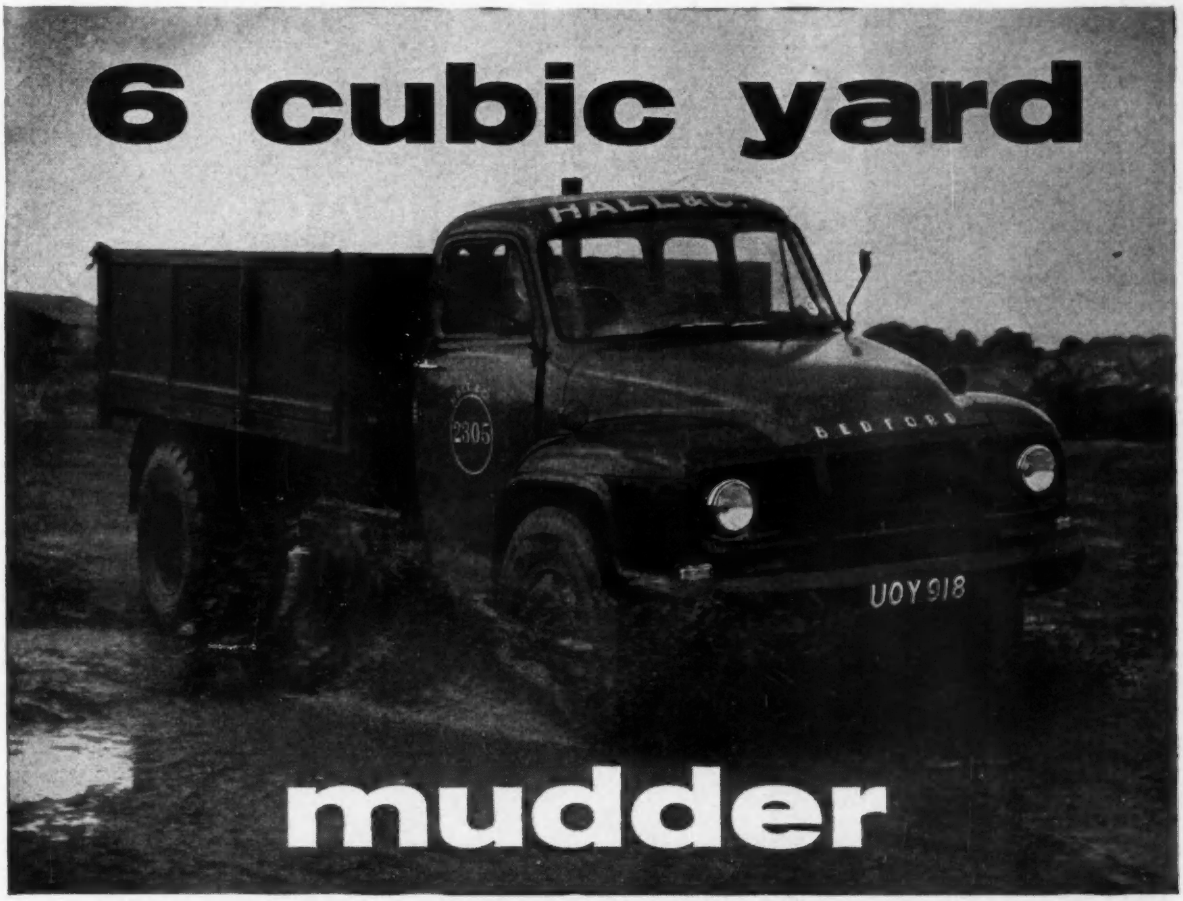


There's nothing to touch a Bedford tipper's performance in muddy conditions. Cleverly thought-out weight distribution makes sure of maximum traction all the time!

There's nothing like a Bedford for standing up to the heavy impact loading of excavators. Note the depth of those Bedford FRAMES and those cold-squeeze riveted cross-members! Note the Bedford springs — 45 to 50 inches long at the front with telescopic shock absorbers, heavy duty progressive at the rear.

You won't find these tippers shaking to pieces! Even the WHEELS are now welded for maximum ruggedness. POWER UNITS Bedford long-life diesel or petrol; GEARBOXES four or five speed in heavy duty cast-iron casing; AXLES single speed or Bedford's own two-speed job; all are engineered for long dependable service.

And always within easy reach, wherever you're operating, there's experienced Bedford SERVICE available with ready stocks of genuine low cost Bedford parts. But see your Bedford dealer — he can tell you every particular thing you want to know.

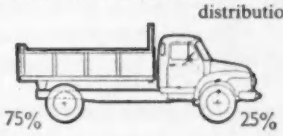
Normal control 6 cubic yard

7 ton rating. 300 cu. in. Bedford-built six-cylinder diesel or petrol engine. Bedford two-speed rear axle optional, giving low ratio for super traction, high ratio for speed and economy when travelling light. Diesel chassis from £1,055, chassis-cab £1,130, tipper £1,380.

Normal control 5 cubic yard

6 ton rating. Powered by 214 cu. in. six-cylinder petrol engine or 300 cu. in. diesel. Single ratio rear axle fitted as standard, but Bedford 2-speed axle available as a regular production option. Petrol chassis £820, chassis-cab £895, tipper £1,065.

Mud doesn't worry the driver of a Bedford! See how well-designed weight distribution takes care of this.



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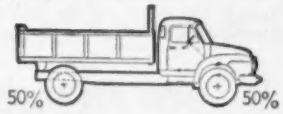
When this Bedford 6 cu. yd. normal control tipper is fully laden, 75% of the weight is on the rear wheels, giving splendid traction and lots of grip for slippery gradients. No bogging down here!



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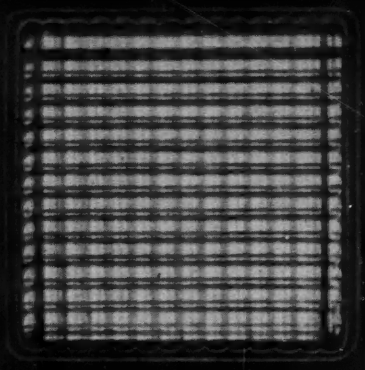
Even when unladen, half the weight is still on the driving wheels to give grip and prevent spinning in soft ground . . . Smartly into position, smartly away: that's Bedford!

Made by
Vauxhall Motors Ltd, Luton, Beds.

BEDFORD

"INSULIGHT"

Hollow Glass Blocks



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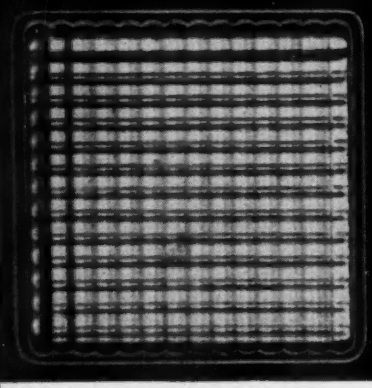

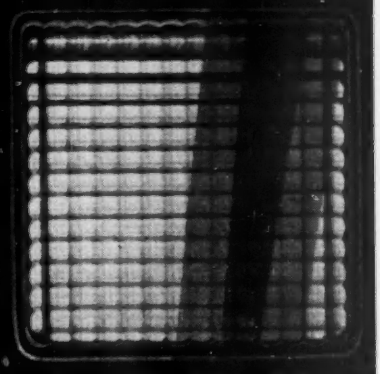

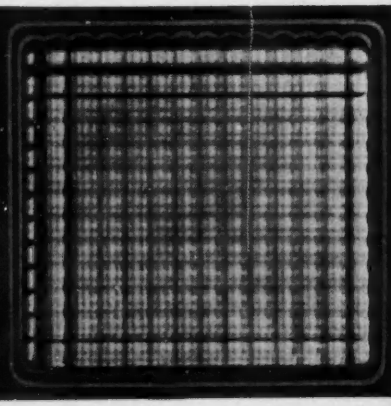

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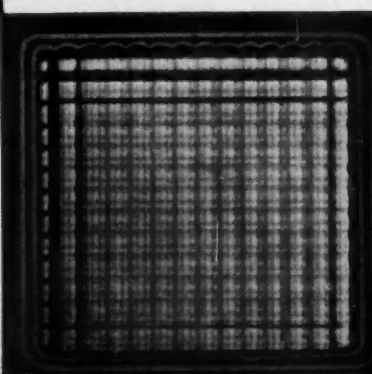

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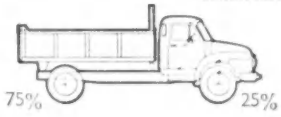

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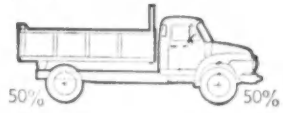

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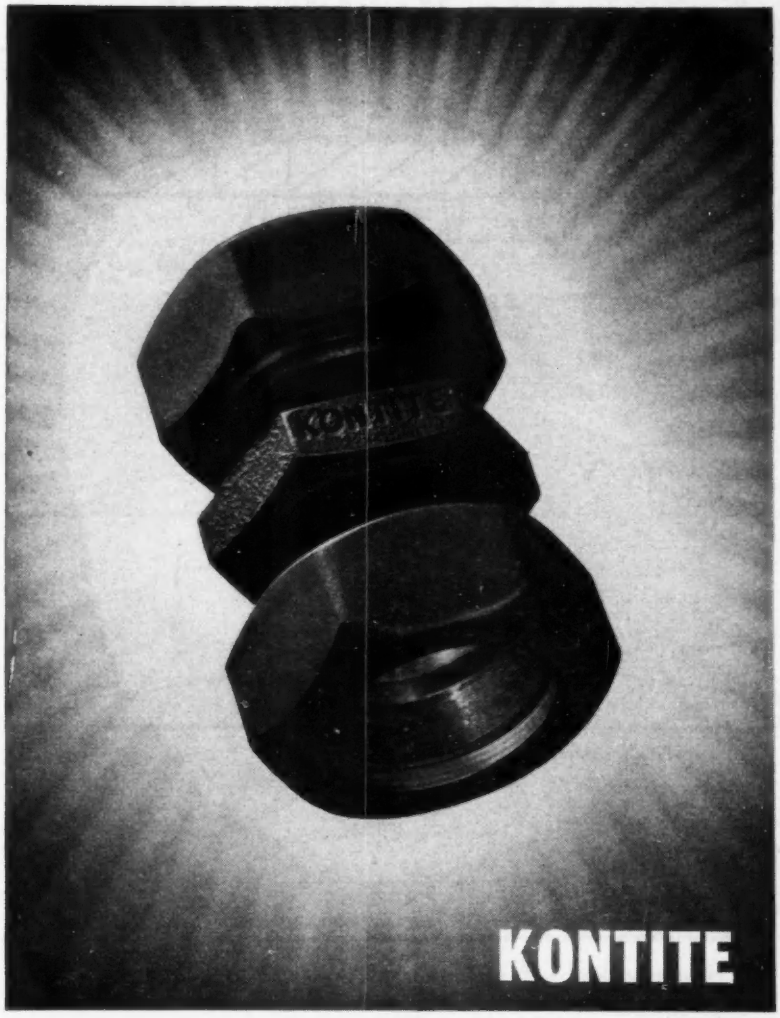

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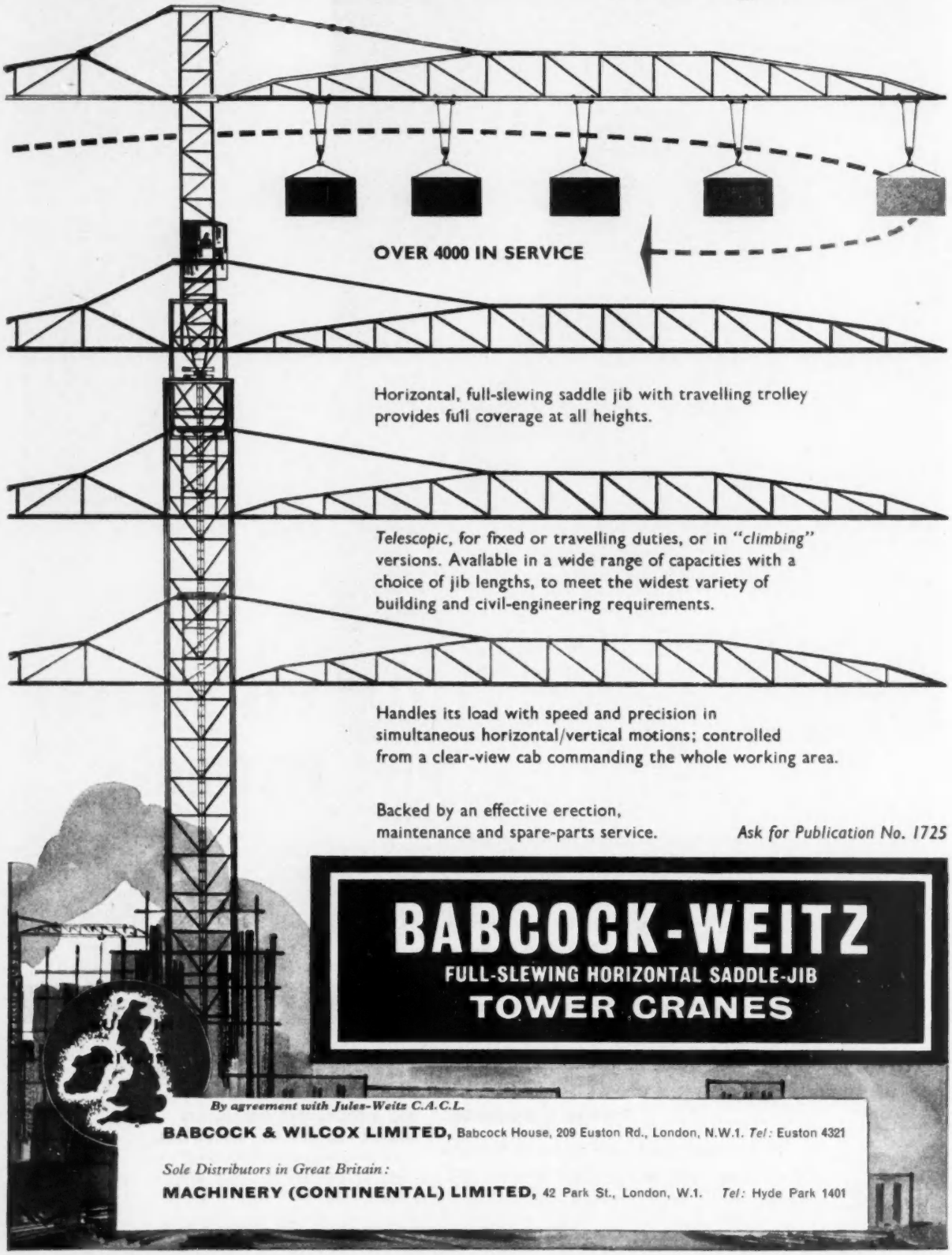

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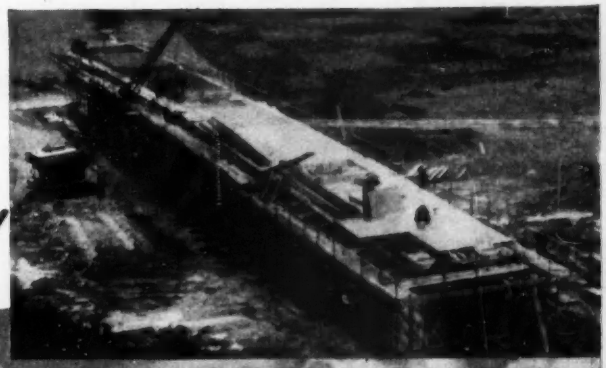

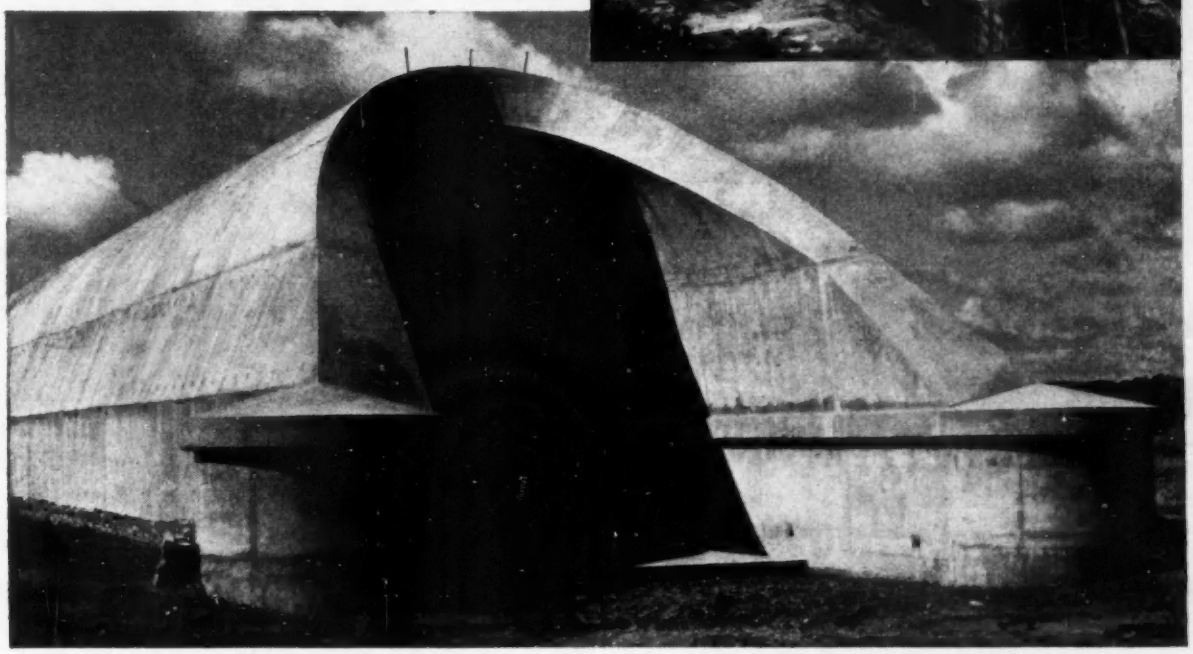

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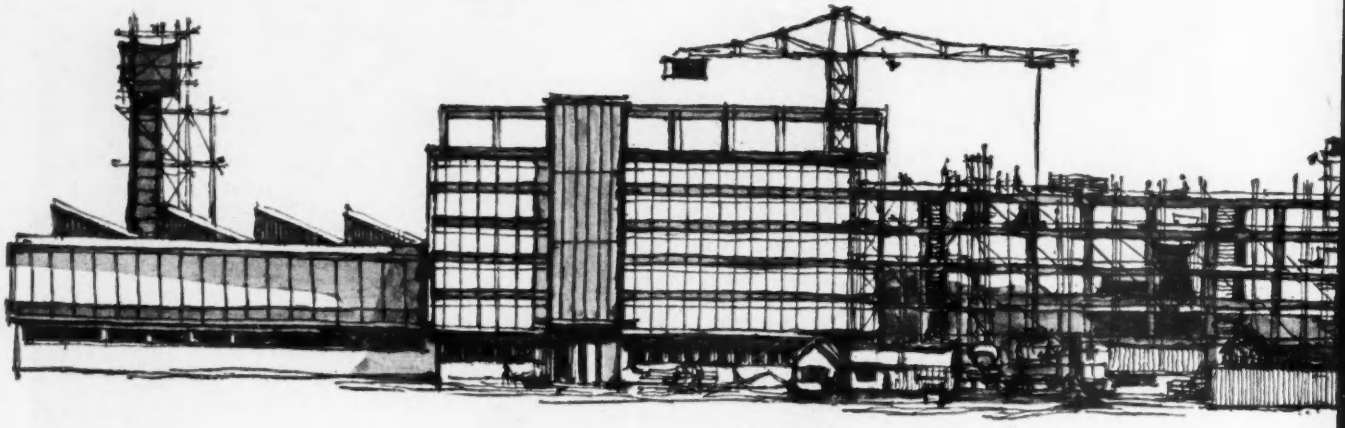

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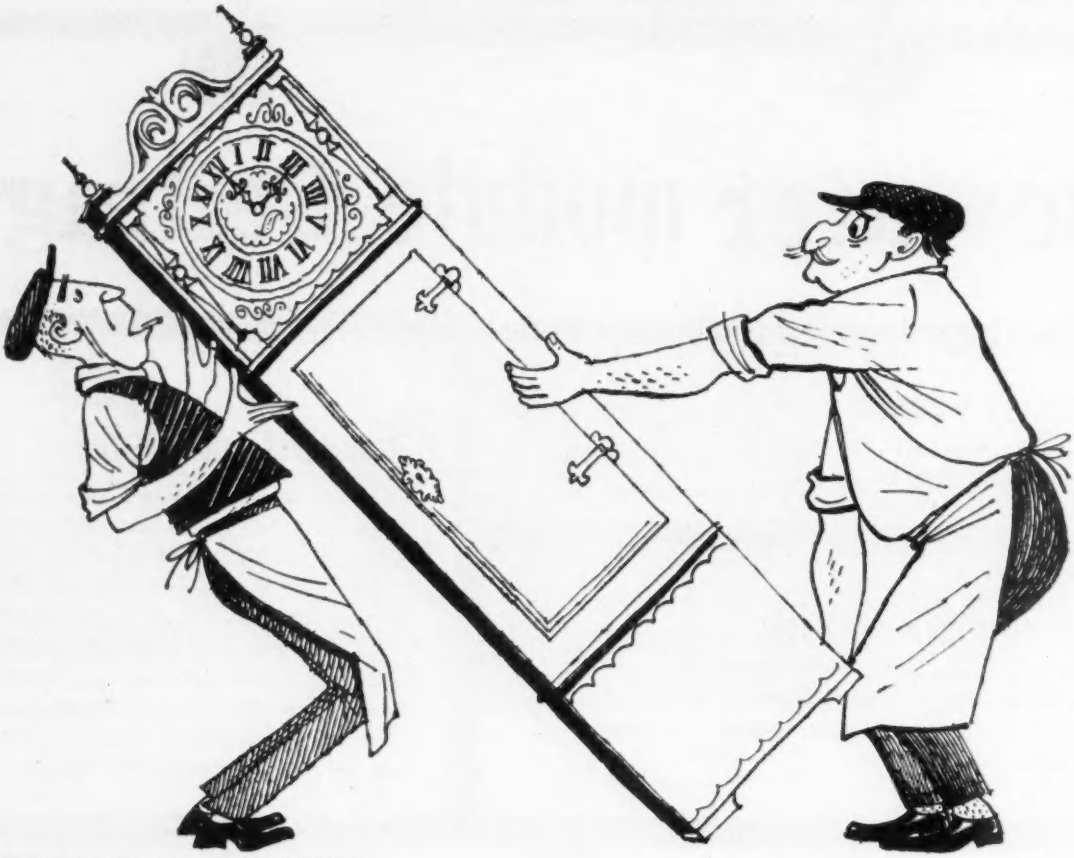

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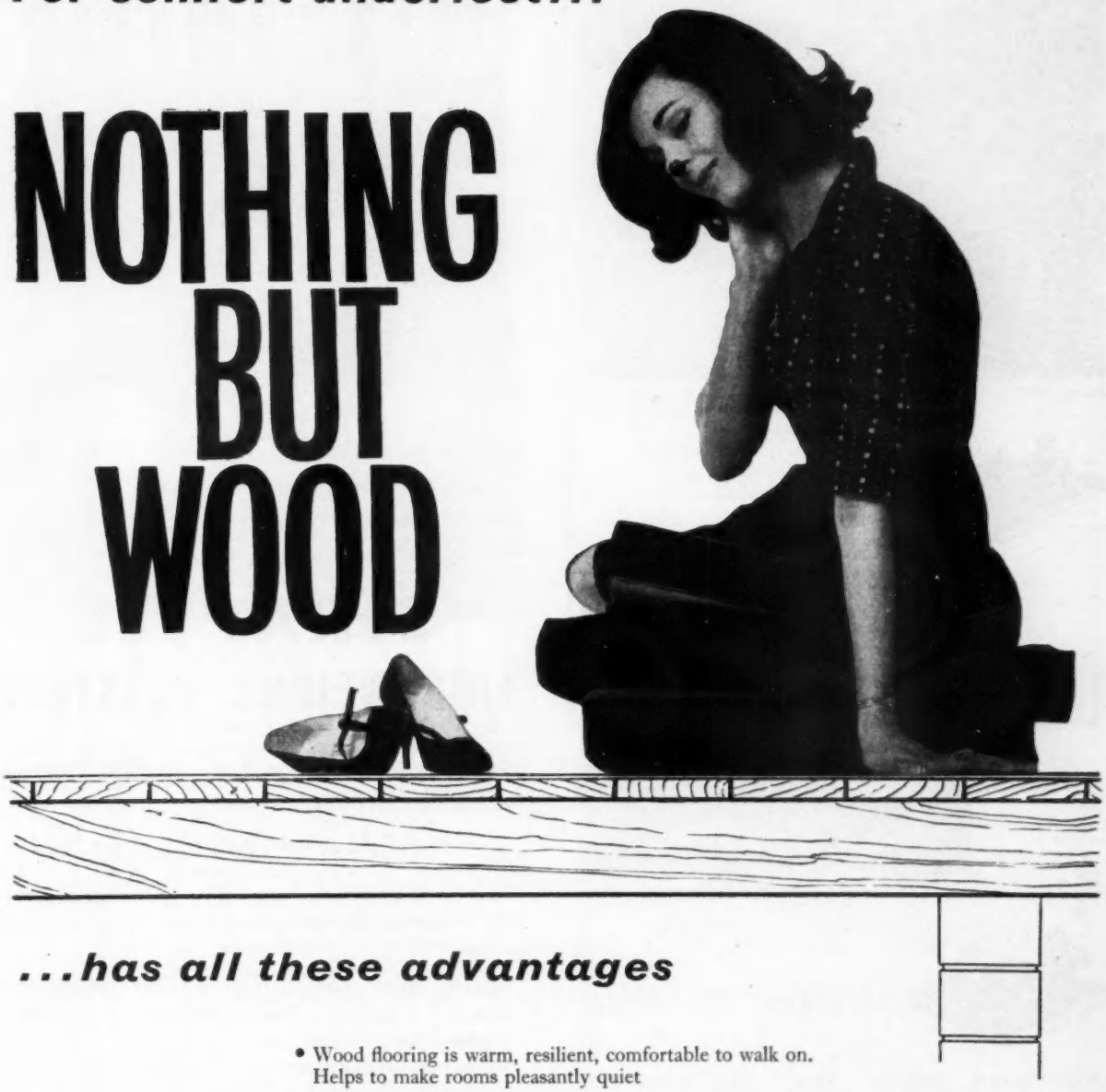

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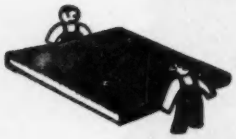

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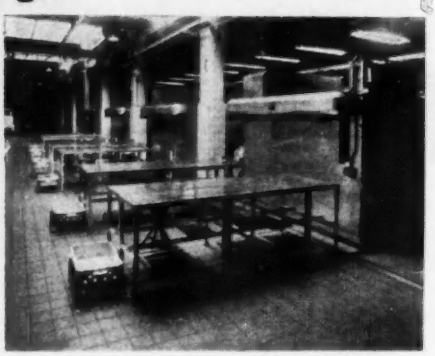

Photo courtesy of Palethorpes Ltd., Tipton. Tiling contractor: C. H. Fox (Audnam) Ltd.

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(*Main Contractor—Tersons Limited*)

3 Factory lining for Spirotex Ltd., at Falkirk.
(*Main Contractor—Costain Concrete Products Ltd.*)

4 Acoustic Ceiling to School for Bedford Corporation.
(*Main Contractor—Drabble Construction Co. Ltd.*)

5 Jablite Elastic Ceiling to Moor House (18 storey office block) in the Barbican.
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6 Factory insulation for Sir Robert McAlpine & Sons Ltd., at Peterborough.

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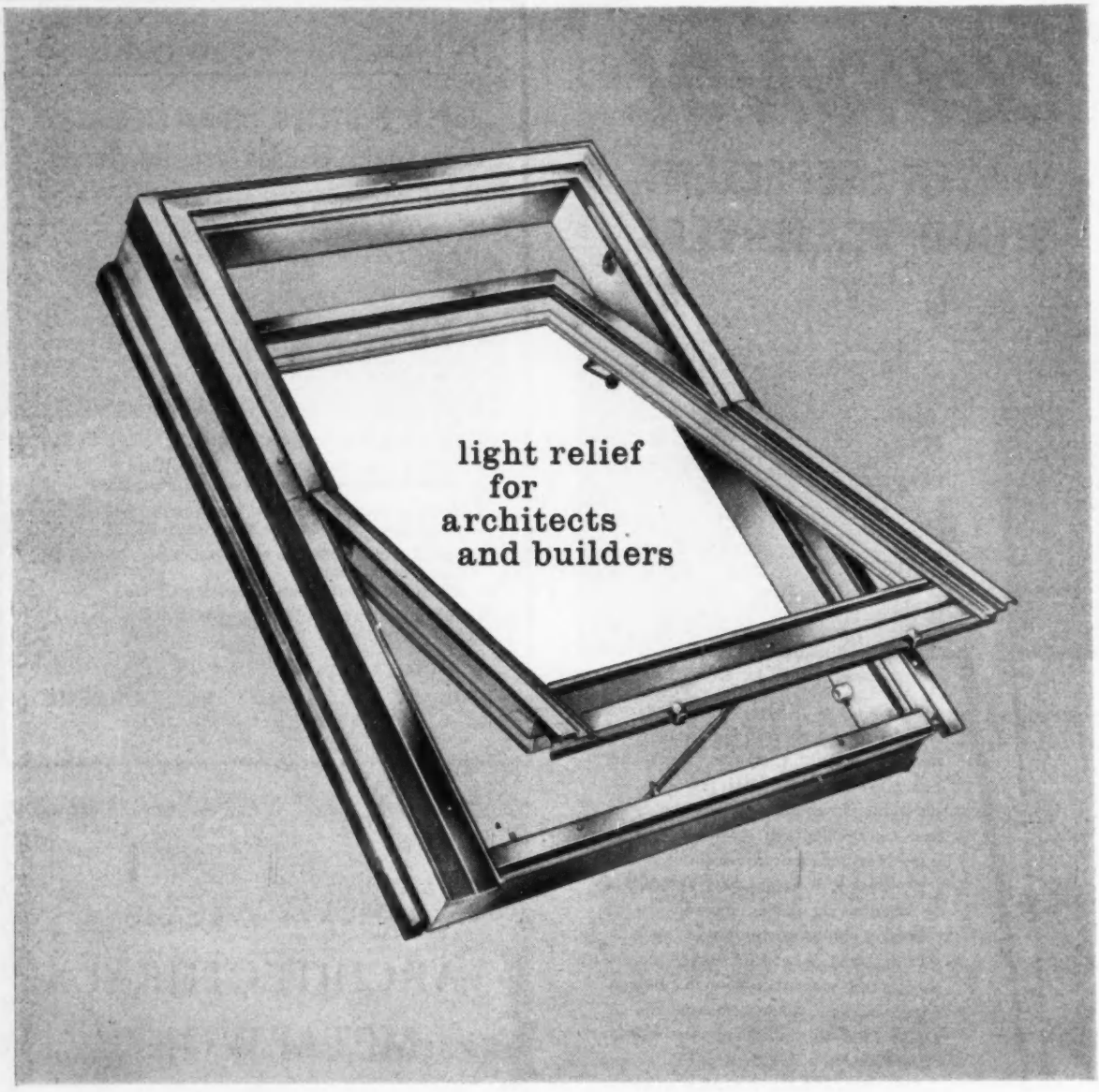

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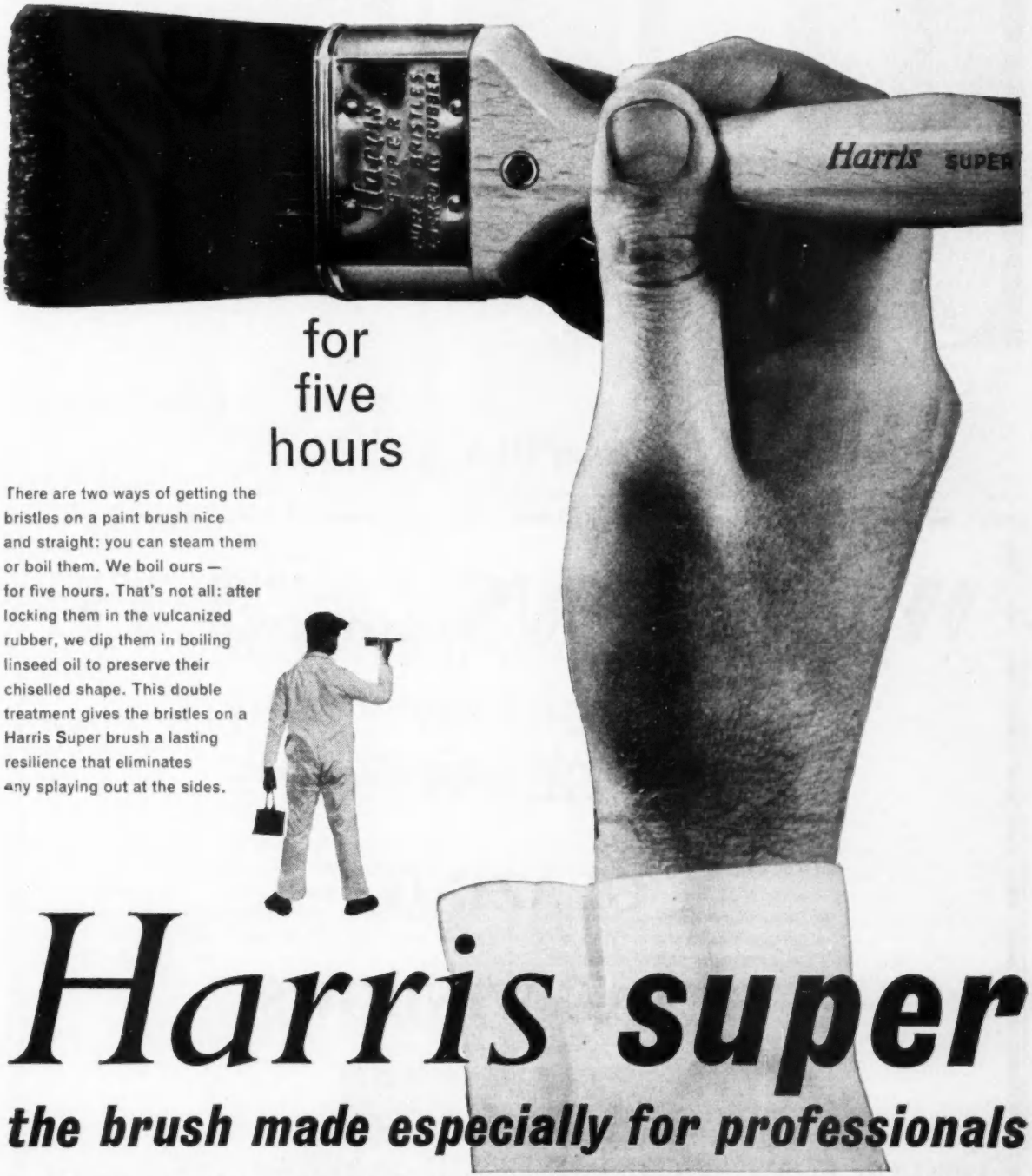

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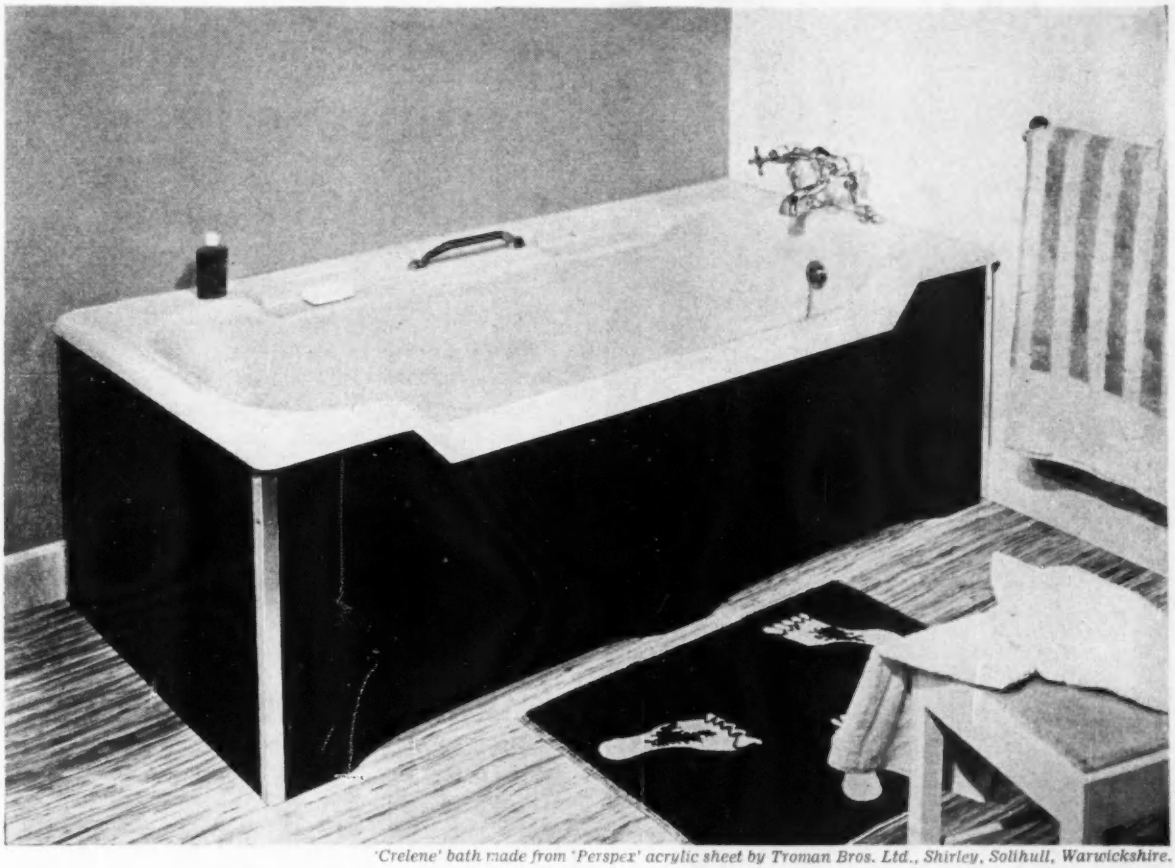

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P.780

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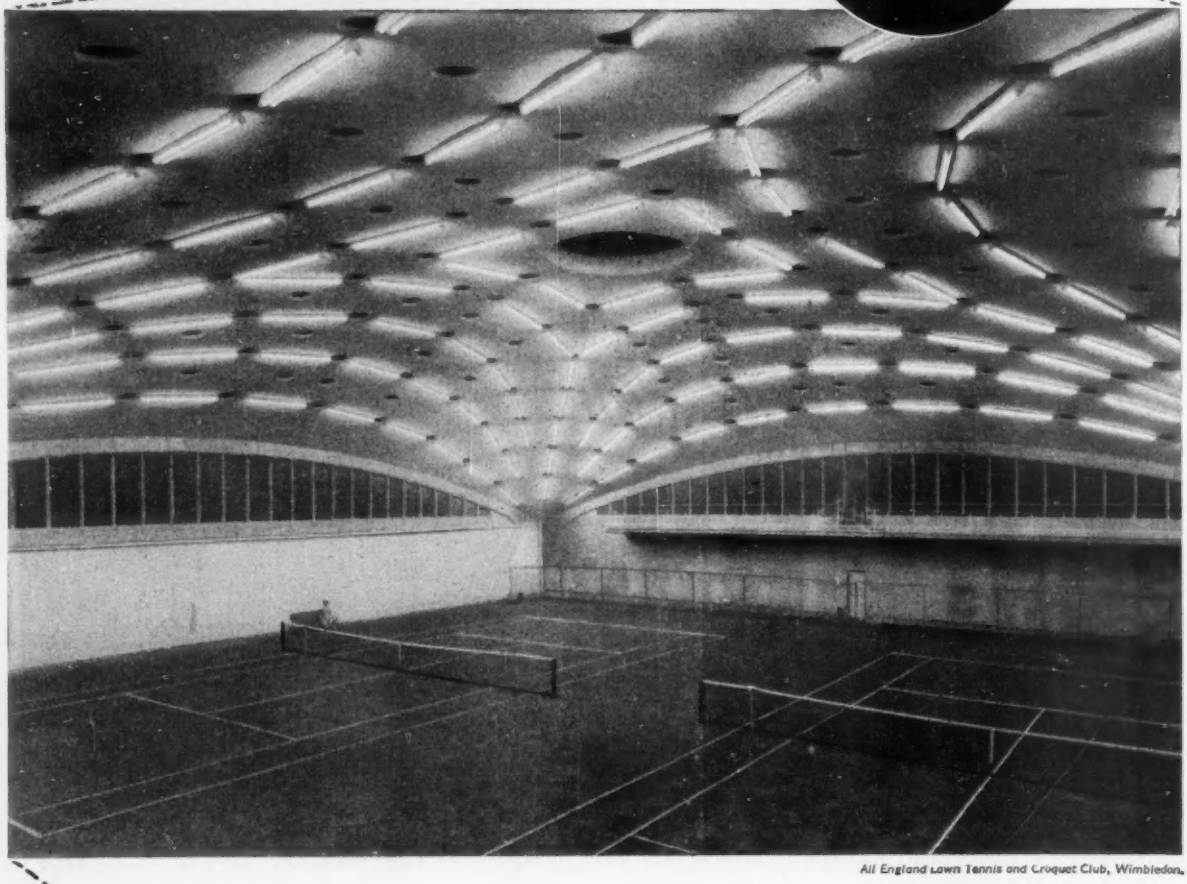
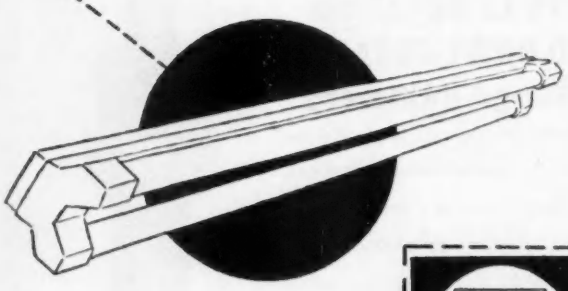


All England Lawn Tennis and Croquet Club, Wimbledon.



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News Summary

321 *A fine of £25 was imposed by Gravesend Petty Sessions on a man who wrongly described himself as a 'Chartered Architect.'*

321 *Architects and engineers are invited to visit Italy in September for the purpose of studying recent developments in building techniques in Rome, Milan and Turin.*

325 *Bilston, Staffordshire, are considering the compulsory purchase of the entire town centre with a view to its comprehensive redevelopment by a private company.*

326 *Students of architecture and planning are invited to submit designs for the redevelopment of the Piccadilly Circus area in a competition organised by the 'Star' newspaper.*

329 *Edinburgh Corporation is not to employ independent architects for redevelopment schemes costing about £18m., but has invited contractors to submit 'package' deals.*

331 *The death has occurred of Mr. F. J. Lander, FRIBA, whose firm was awarded the London Architecture Bronze Medal for 1933.*

333 *Despite local objections, the Housing Minister has given permission for the erection of schools and houses on a 60-acre site near Gatwick Airport.*

335 *The importance of an adequate electrical installation is emphasised by the Electrical Contractors' Association in its evidence to the MoHLG's Advisory Committee on Housing Standards.*

'Late News' will be found overleaf, and 'News of the Week' on page 325

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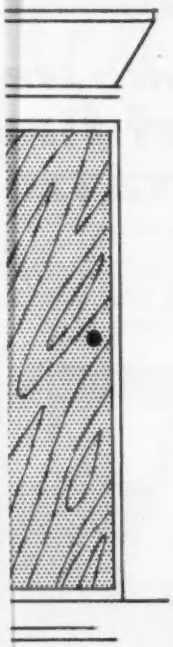

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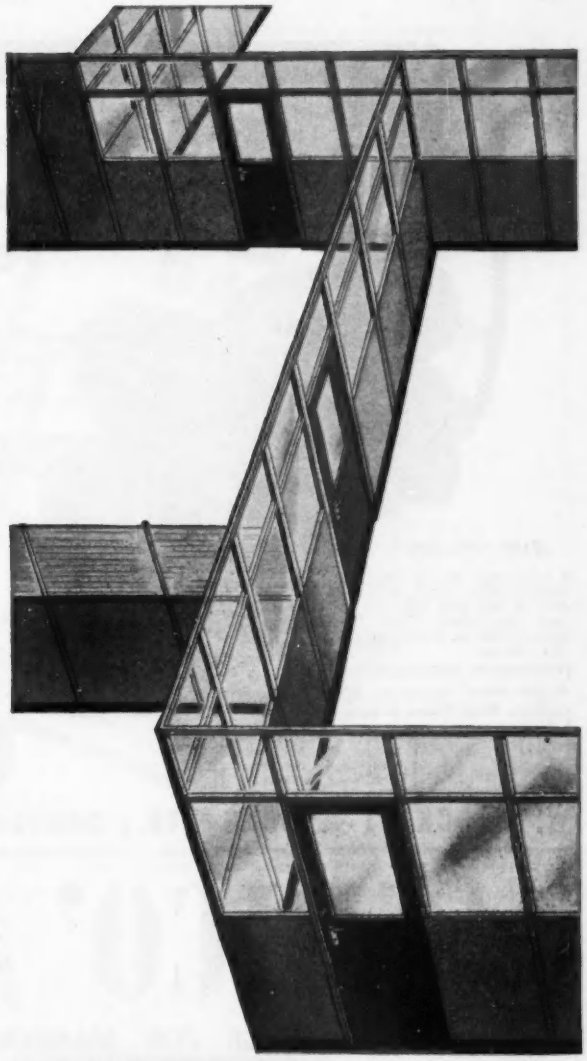

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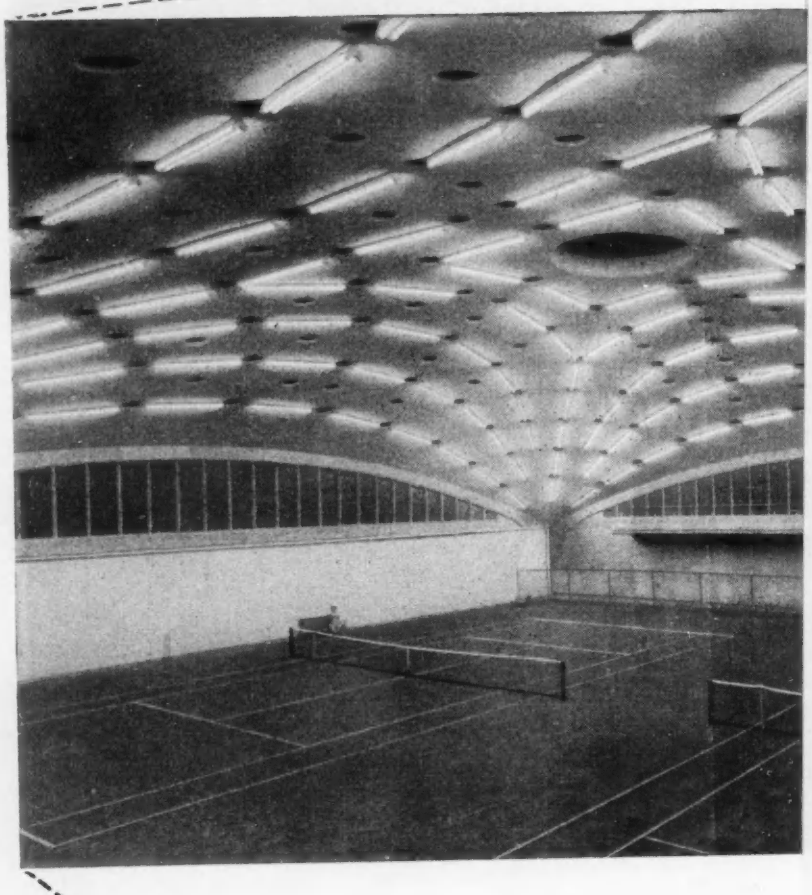

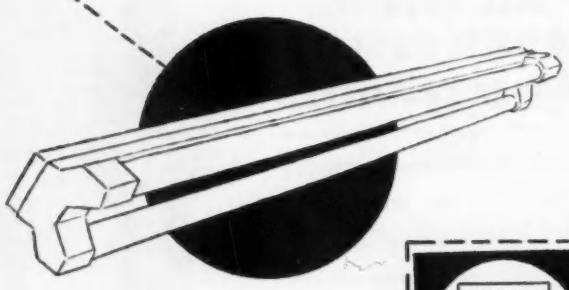

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Late News

Liverpool Cathedral Competition

THE RESULT in the architectural competition for designs for the completion of Liverpool Metropolitan Cathedral is due for public announcement this (Friday) morning. It will be published in 'The Builder' next week when it is hoped to illustrate the premiated designs with a criticism by Mr. Herbert Thearle, BArch (Liverpool), FRIBA.

The designs will be on public view at the Ursuline Convent School, Crescent-road, Worple-road, Wimbledon, SW20, from Tuesday next, August 23, until Saturday, August 27 inclusive, from 10 a.m. to 8 p.m. daily.

Arcade for Oxford Street

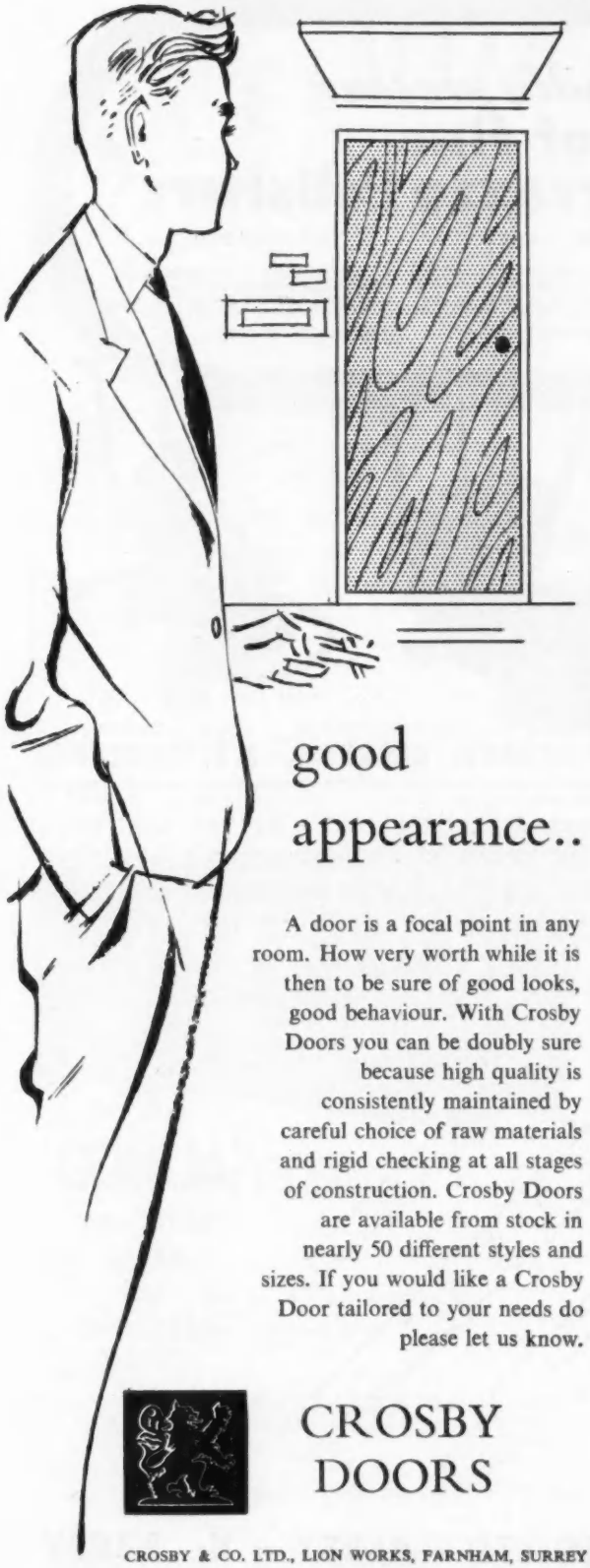
BEHIND A £178,000 grant which the Ministry of Transport is making towards the LCC's scheme to widen Oxford-street is a proposal to carry the footpath within the curtilage of a new building to be erected for Swears & Wells on the corner of Oxford-street and John Princes-street, near Oxford Circus. The carriageway of Oxford-street will be widened from its present 46 ft. to 55 ft., this being obtained by setting back the ground floor frontage of the new store in the form of an arcade which will follow Regent-street's classical style. This proposal is in line with the aims of the 'Make London Livable' Group, and will give an extra traffic lane at this congested intersection. The architects for the building are Messrs. Alister G. MacDonald & Partners, Aldine House, 10 Bedford-street, WC2.

Sculpture Competition

NEWCASTLE UPON TYNE housing committee are to hold a national competition among sculptors in connection with the redevelopment of the Scotswood-road area. The competition is for the provision of a sculpture group for a new park which will be the focal point of the new development. There will be a first prize of £1,250 plus an amount of up to £1,000 for the materials required in the execution of the finished work.

Shorter Week in Brick Trade

BRICK WORKERS are to have a shorter week and a higher basic rate of pay from November 7. A spokesman of the London Brick Company stated at Ampthill, Beds., on Tuesday, that the Pressed Brick Makers' Association have agreed with the unions for the working week to be reduced from 44 hours to 42. The basic rate will go up from 4s. 1d. an hour to 4s. 3½d.



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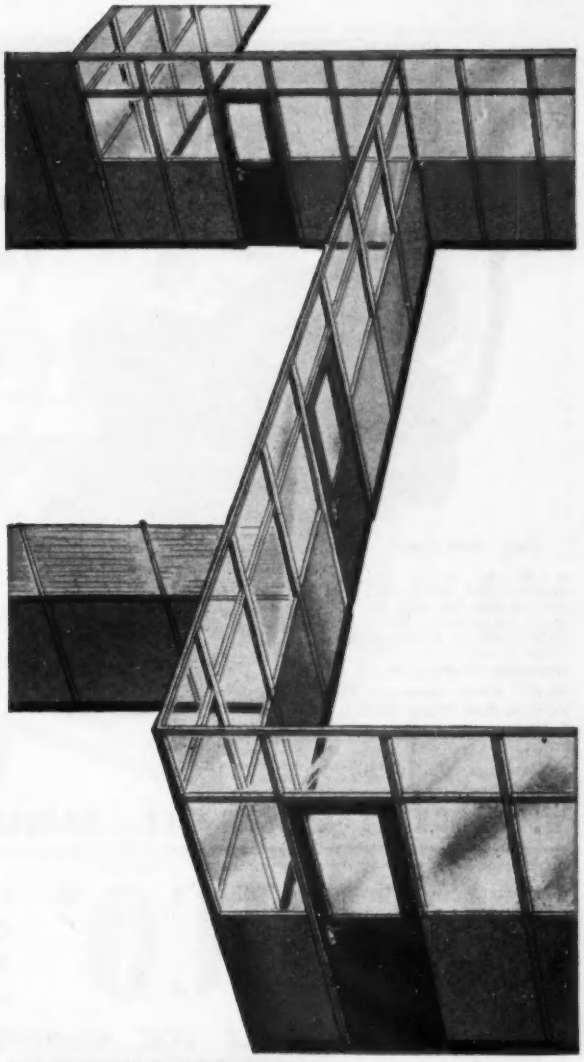

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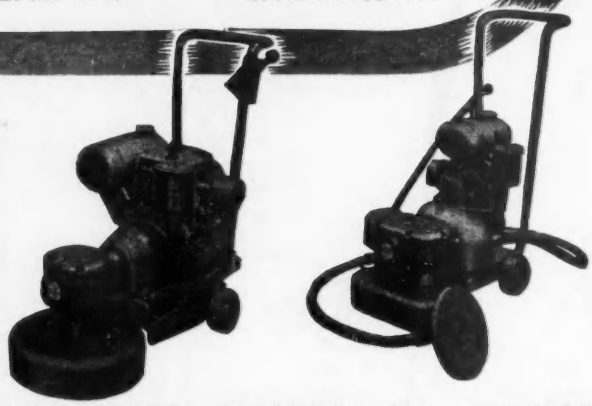

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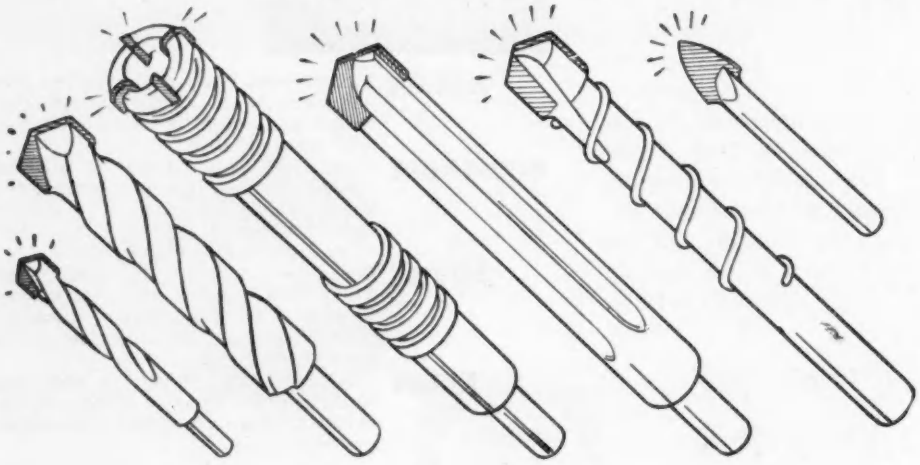

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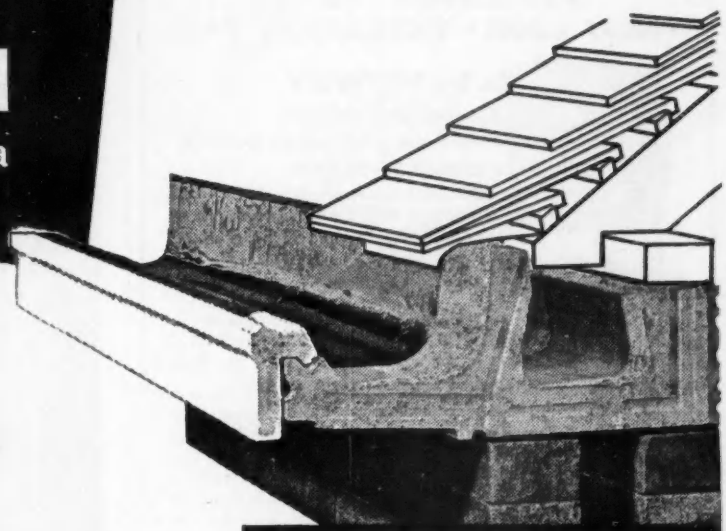

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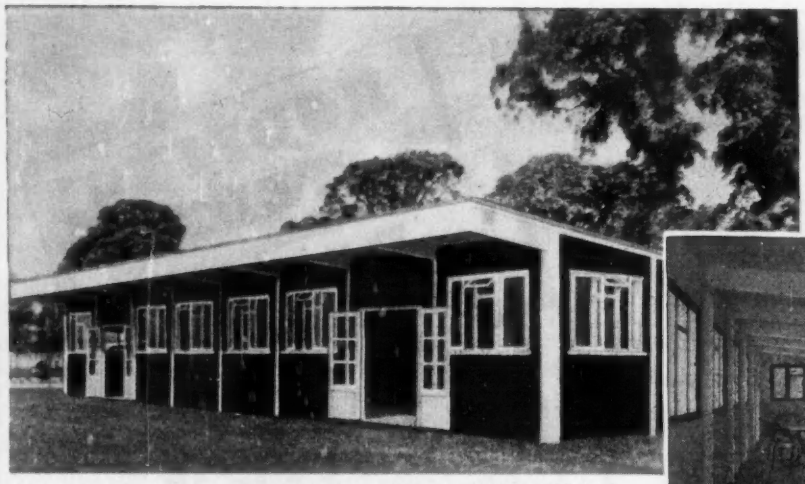

think of TIMBER BUILDINGS...

MEMBERS' PAVILION, GOODWOOD MOTOR RACING TRACK, 25 ft. x 11 ft. 6 in. plus 5 ft. CANOPY. Photographs by courtesy of Empire (Catering) Co. Ltd. 46-48, James Street, London, W.1.

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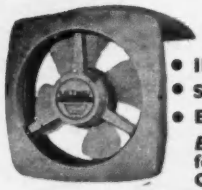

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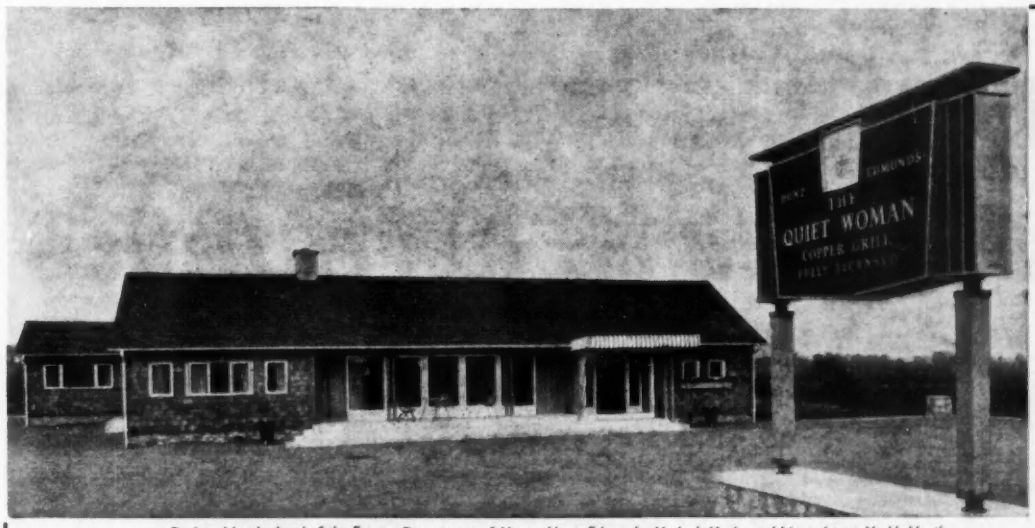

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The Builder

INCORPORATING ARCHITECTURE & THE BRITISH ARCHITECT

Vol. CXCIX. August 19th 1960 No. 6118

Published from 'The Builder' House, Catherine-street, Aldwych, London, WC2. Telephone: Temple Bar 6251-2-3-4. Annual subscription: £4; for six months £2. Single copies (including back numbers up to 12 months old) 1s. 6d. (post paid 2s.). Indices free on application.

PRINCIPAL CONTENTS

ILLUSTRATIONS

PAGE

314 Flats and Houses at Dulwich. By Austin Vernon & Partners

318 Crematorium at Worcester. By John S. Williams

322 Public House at Southcombe, Oxon. By L. J. Marks and H. Heath

ARTICLES

311 Current Exhibitions: John Ruskin and Central Line Jubilee

312 Milton Abbey School: Chambers's Most Ambitious Domestic Work

313 A Prefabricated House by Frank Lloyd Wright

320 Letter to the Editor

324 More Everyday Things—3. By Arthur W. Kenyon, CBE

324 Maidstone By-pass Bridge: Launching of Suspended Beams

327 A House 'Off the Peg'

328 Building on the Lines of Ancient London. By Gordon Tomalin

330 Some Causes of Sub-standard Building

335 Electrical Installations and Housing Standards

336 Cost Control and Management Appreciation: Scottish Course

337 Brickworks to Building Site: New Rail Transport Approach

Counting the Final Cost

ESTIMATING is a highly skilled job. Difficulties occur even when full documentation, including adequate drawings and bills of quantities, is forthcoming. In the absence of these details the difficulties multiply more than proportionately. Even so, it is disturbing to read of the differences between precept and practice on public schemes as revealed by the Committee on Public Accounts. A summary of the report of the committee, presided over by MR. HAROLD WILSON, who is not unacquainted with building matters, was reproduced in our issue of August 12.

The Ministries of Transport, Works and Health all come in for criticism, particularly the Ministry of Transport, which is not altogether surprising in view of the attention that road policy is receiving. The committee make full allowance for the difficulty of estimating for major road schemes for which there have been few, if any, precedents. But they doubt whether effective Treasury financial control can be exercised when estimates are admitted to be no more than 'inspired guesses.' Thus the estimated cost of the first section of the M1 rose from £16.4m. to something like £20m. The Ministry of Works first put the cost of a research establishment at £10.9m., whereas three and a half years later they were thinking in terms of £25m. But perhaps the most startling discrepancy concerned the reconstruction of a teaching hospital. The original estimate was for £80,000, but it was not until the structure had been opened that weaknesses were found that left no doubt that new building, rather than reconstruction, would be more satisfactory and no more costly. Some £41,000, the cost of the abortive scheme, could, it seems, have been saved by expert superficial examination at the outset.

The ill effects arising from such miscalculations can be considerable. The doubts they create are not confined to those immediately responsible, professional staff or otherwise. They provide, as the committee indicate, a completely false picture of forthcoming public expenditure, and they certainly help to explain the host of supplementary departmental estimates that appear so regularly as Budget Day approaches. Moreover, if an all-party committee of MPs can point to such estimating errors where private contractors are ultimately to be employed, what of direct labour departments? An inherent tendency to underestimate must surely undermine any safeguard that such departments should tender in competition with private contractors. Nor is this all. A totally false impression is given of building costs. Public opinion, being what it is, is liable to blame the contractor for any increases in final costs over the original estimates, notwithstanding that the latter may be 'inspired guesses' at the very best. In point of fact, the

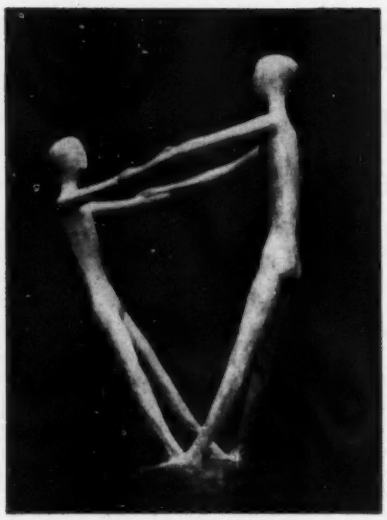
steadiness of building costs during the past few years has been a potent factor in the stability of prices generally; indeed, some astute observers are being led to question whether building costs are not now too low.

Be that as it may, it is evident that faulty forecasts do at least as much harm here as in any other sphere. The committee list a number of recommendations that are surely worthy of serious consideration, notably that relating to the immediate fixing of responsibility for the waste of public money. It is reassuring to note that the Ministries pinpointed are already taking some steps to eradicate their deficiencies: Transport by seeking fuller and more effective use of consulting engineers and by setting up a Motorways Branch, with representatives constantly on the sites; Works by comparing outside professional charges with its own departmental costs; and Health by preparing cost targets and building typical units to demonstrate the possibilities of achieving appropriate standards within defined cost limits. It is to be hoped that these steps are but the forerunners of others that will result in public authority estimating becoming far more skilled than in general it appears to be at present.

Notes of the Week

Redevelopment at Edinburgh ; A Plan for Piccadilly ; Mr. G. H. A. Hughes Retires

FOR A CITY that has always taken pride in generous patronage of the arts, Edinburgh does some odd things. A current example is the decision of the housing construction committee of the corporation to employ contractors in preference to architects for the planning of major reconstruction projects within the city, estimated to cost £18m. over the next ten years. Contracts have been placed with two firms of national contractors for two pilot schemes at Longstone and Muirhouse where existing prefabricated housing will be replaced by flatted buildings, and further tenders for two additional schemes are expected to be let next month. Altogether the decision is intended to apply to 14 sites. In each case the successful contractor will prepare plans for the redevelopment of the site, as well as for the erection of the buildings on it. According to Cllr. Norman Smith, convener of the committee, 'we felt that in these projects, which involve not only planning and building but demolition or removal of the existing houses and alteration of site levels, a contractor would be better able to do the job. The contractors will employ their own architects and surveyors.'



The maquette of 'Mother and Child,' a freestanding sculpture designed by Patricia Rowland, ARCA, which stands outside one of the eight-storey blocks of flats built by Wates Built Homes, Ltd., at Dulwich (illustrated in this issue). The sculpture, which has overall dimensions of 6 ft. high by 4 ft. wide, has been built up in white concrete with Derbyshire Hopton Wood aggregate and has a polished finish. Structurally, it is based upon a mild-steel armature manufactured by the Modular Concrete Company, and its basic form is built up in expanded metal

* * *

IS IT TOO LATE to reverse a decision that not only effectively shuts out the smaller contractor from any share of this vast programme but deprives the city of the skill and independent control of the contract which the architect, whether private or official, brings to a building project? Mr. T. G. Salmon, secretary of the Edinburgh Architectural Association, has suggested that some of the town councillors are not aware of the implications of their decisions, and has expressed the hope that the decision may be reversed in favour of the normal practice of employing architects to design new schemes. In endorsing this, we suggest that the Association should send a deputation to the City Council to put the other and less favourable aspect of that seemingly attractive mirage, the 'package deal.'

A Plan for Piccadilly

AT FIRST SIGHT the competition sponsored by the 'Star' newspaper for the re-development of the Piccadilly Circus area seems both enterprising and useful. Study of the conditions (abstracted on page 326) supports primarily the enterprise of the idea. To throw open only to students of architecture and town planning a problem demanding for a practicable solution very considerable research is to limit its usefulness. Data of every kind—on site user, roads and traffic needs, ownership of sites and duration of leases among them—are needed if competitors are to turn in anything of practical import; much of this is beyond the reach of students. If a serious solution is sought, why not extend the closing date beyond December 19 and allow qualified professionals to take part? Better still, if the promoters' object is to encourage the young (and every newspaper must have this in mind) why not open a second section, open to qualified men only?

That having been said, we commend our contemporary on its initiative in organising a competition which, even in its present form, should produce some useful ideas and focus public attention on a pressing planning problem.

Mr. G. H. A. Hughes Retires

ON AUGUST 31, sixteen years to the day from taking up in 1944 the appointment, Mr. G. H. A. Hughes retires as Director of the London Master Builders' Association, a post he has held with distinction during a period in which building, as so many other sides of the national life, has seen enormous changes. 'GHA' came to London after 15 years as director of the Eastern Federation, and at once began a campaign for unity among building employers. As he wrote in our columns shortly after becoming LMBA Director: 'We have great and responsible tasks ahead of our trade—let us unite to see that we are enabled to fulfil them.'

Mr. Hughes has brought many qualities to what had become his life's work—among them a sense of propriety and an ability to speak well and to the point. He has been a particular friend to the Association's peripheral connections, especially to the London Builders' Foremen. His work in a wider sphere was recognised by the conferment of the OBE in the Birthday Honours, 1953. He was President of the Institute of Arbitrators 1958-59. With Mrs. Hughes, who has made such a personal contribution to LMBA social affairs, he moves to Eastbourne next month. The LMBA are proposing to honour Mr. Hughes by making him their guest at a cocktail party in Carpenters' Hall on November 10.

Poet's Corner

LORD DAVID CECIL, in a letter to 'The Times,' has suggested that the only way to save ancient Oxford from the modern traffic that threatens to destroy its character and integrity is to segregate it.

Collegiate precincts united
  To keep the car at bay!
Shall we not all be delighted
  If Oxford can show the way
To throw off the motor menace
  that grips it as in a vice—
To become, like an inland Venice,
  A pedestrian's paradise!

ANON.

Current Exhibitions

John Ruskin; The Central Line Diamond Jubilee

THE TIMING of the Arts Council's exhibition of Ruskin drawings (St. James's Square gallery until August 24) is not the least of its usefulness and interest, writes Basil Marriott. The multitudes flocking to the Picasso Exhibition—from mixed motives touched on in a recent note here—might consider Ruskin small, and stale, beer; but a minority will welcome the opportunity to reassess an enigmatic, controversial and tragic personality, in whom the whole public attitude towards art criticism comes to a head.

Naturally the exhibition demonstrates Ruskin as artist, neither more nor less competent technically than the gifted amateur of his time. But—to forestall those still unaccountably harbouring the contempt and even hatred of successive generations for Ruskin as writer and critic, who may feel their judgment borne out by this fact—the technical achievement of a critic is really irrelevant. His claims lie elsewhere; in being able to distinguish what he likes from what he knows to be good of its kind. For this, he must at least have tried his hand, trained or otherwise, at doing it.

Ruskin went further; the sheer love of what caught his inner eye, and the pleasure of recording it, outweigh other considerations. Sir Kenneth Clark, in his foreword to the catalogue, pertinently contrasts Ruskin the artist's humility in this with the arrogance and vehemence of Ruskin the critic.

The Drawings

The sources for the selection are mainly the Ashmolean (Ruskin School Collection) and Education Trust Ltd. (Bembridge School, IoW), with other University and private additions. In the architectural works, one might not go all the way with the foreword's description of some of the most beautiful records ever made (the fragments seldom pull, and often hardly hang, together) but few will disagree that when

Pisa. From a drawing by John Ruskin

Ruskin's faith-hungry eye was focused on works of art the feeling of organic nature was never lost.

It was, however, clearly only after the 'revelation' described in 'Praeterita' that he realized the inadequacy of his Italian studies in face of a naturism which was the beginning of a new life and vision—and perhaps even of its tragic end, as I shall venture to suggest in conclusion.

Ruskin's almost obsessive regard for Turner is echoed in such pointers as nos. 10 and 12, and an on-and-off flirtation with the pre-Raphaelite Brotherhood: but other influences and affinities are harder to explain, while being sometimes uncannily prophetic, as (in nos. 16 and 17) with Graham Sutherland. The odd thought is prompted that, five hundred years hence, Ruskin as artist might have found in the crumbling works of Nervi or Gaudi just that reconciliation of organic proliferation with architecture which he sought—though what he might have written as their contemporary critic is another matter!

In no. 49, AA members will recognize a companion-piece to that (also of the Scaligeri Tombs) which for years hung in the dining room there. At student age, this to me suggested the possibilities in a sort of architectonic abstractionism, confirmed when the reality was seen—and indeed became a personal wartime responsibility—emerging piecemeal from ARP swaddling in Verona!

In these days of popular psychology, melancholy interest will, I think, attach to such meticulous studies as nos. 45 and 46—of a lichened-brick fragment, and of kingfisher feathers. Executed shortly before Ruskin became increasingly disturbed in mind, could it not be that their focusing on a sort of microcosmic surrealism was symptom of his urge to escape from a wider world he felt impotent to tackle or communicate? However this may be, the result leaves feelings of indulgence and even affection tinged by pity, rather than of contempt or anger: a wholesome, if belated, balancer.

BASIL MARRIOTT

Central Line Diamond Jubilee

SMOKE IN A TUBE TRAIN is something that will make the headlines of the evening papers, and this fact is sufficient to remind one how much the Tubes are taken for granted both from the point of view of safety and also in terms of a transport system as a whole. It is unlikely that the exhibition to commemorate the existence for sixty years of the Central Line will make half as much news, and it is by far the more significant event. This exhibition is of photographs of trains and stations both in 1900 and 1960, and also of models of the new Notting Hill Gate and the proposed Oxford Circus stations. It is being held in the exhibition space at Charing Cross tube station until September 7.

Influence of Engineering Principles

One's first impression is that the design of both the trains and the stations has not changed very much between these years, but this is simply that certain standards, for example the 11ft. 8¼in. tube lining, have remained the same and for obvious reasons so have certain of the engineering principles involved. Looking a little closer, it can be seen that the design within these limits has entirely altered, the fruity faience work at Notting Hill Gate having given way to very clear-cut detailing in the new station. The models are of the most up-to-date designs of stations and they present the design in the only form that makes it possible to understand the complexity of the positioning of the tunnels and the passages that carry the flow of people to them. While it is difficult to evaluate the design of these stations in terms of the flow of people simply by looking at the models, it will become obvious whether or not operational research techniques have been used in their design the first time that they carry an exceptional number of people. There are one or two points that make one wonder a little; for example, there does not seem to be any attempt to distribute people evenly from the passageways along the length of the platforms.

The original Notting Hill Gate station symbolises the

opportunist 'Twopenny Tube,' and if anything the station at Loughton must symbolise an integrated transport system. The point is—what comes next? It seems that the design for both the Notting Hill Gate station and that for Oxford Circus have both been evolved without any real integration with the overall planning of the areas they are to serve. Both simply open up to the sidewalks like giant vacuum cleaners. The fact that tremendous queues have formed at Oxford Circus in the past when there has been some failure of the tube service which, besides choking pedestrian movement in the area, has also exposed those who have to pass the queue to danger from traffic, gives some indication of what could happen in such cases. It would be completely unfair to suggest that the fault is entirely that of the designers of the new stations. In many ways it is simply a symptom of our age and of our particular city where we consider it not as a city but as a series of plots of land to be developed, and the flow of people and traffic as other people's business.

PETER HOWELL

Milton Abbey School, Dorset

Chambers's Most Ambitious Domestic Work

THE MANSION OF MILTON ABBAS, DORSET, has been held to be the most ambitious of the domestic works of Sir William Chambers. Dating from 1771 and built on the site of 15th-century Abbey buildings, the house now contains Milton Abbey School, established there about six years ago, and recently the subject of a financial grant made by the Ministry of Works, under the provisions of the Historic Buildings and Ancient Monuments Act of 1953. Accordingly, it may now be visited by the public, and the Abbot's Hall and west wing are open for inspection on payment of 1s. fee every day (except Mondays and Fridays) until September 3. The following notes have been provided by the Ministry and by the consulting architect to the Council of the School, Mr. A. R. F. Anderson, FRIBA.

THE MANSION OF MILTON ABBAS has several parallels with the Palace of Westminster. Both are grandly articulated buildings by masters of the classical ground-plan dressed up in the gothic manner. In both, a fine medieval hall, sole survivor of the preceding building, is incorporated in one side of the scheme. Just as the Palace of Westminster lies close beside the Abbey of St. Peter, so Milton lies close beside the Abbey Church of the Benedictines—though the Great Hall was that of an abbot, not a king. But here the Abbey Church is used as the chapel of a boys' school, though this usage is of but a few years' standing.

The Abbey of Milton is believed to have been founded by King Athelstan in the tenth century, either as a thanksgiving for winning the battle of Brunenburgh or as a penance for having caused the death of his brother. The present Georgian gothic house was built in 1771 by the first Earl of Dorchester on the site of the 15th-century Abbey buildings, which were then demolished except for the fine Hall, with its magnificent hammerbeam roof, which was incorporated in the design of the new building. In 1852 it was sold by the Earl of Portarlington to Baron Hambro of Denmark, whose grandson Sir Eric Hambro was its last private resident. In 1954 it was acquired by the boys' public school which occupies it today.

Unlike most 18th-century houses, Milton Abbas has a courtyard plan. Entrance is by a massive 'porte-côchère,' copied from a medieval gatehouse, in the north side; the Abbot's Hall lies opposite; and the principal state rooms and staircase are in the west range. The east range was gutted by fire in 1956 and has been entirely rebuilt inside.

Although there is no documentary support for James Wyatt's connection with the house, he is believed to have been responsible for parts of the interior. In 1789-91 he was certainly engaged in the restoration of the church. In the Hall a much rarer survival even than the handsome roof is the carved timber ogival screen at the east end.

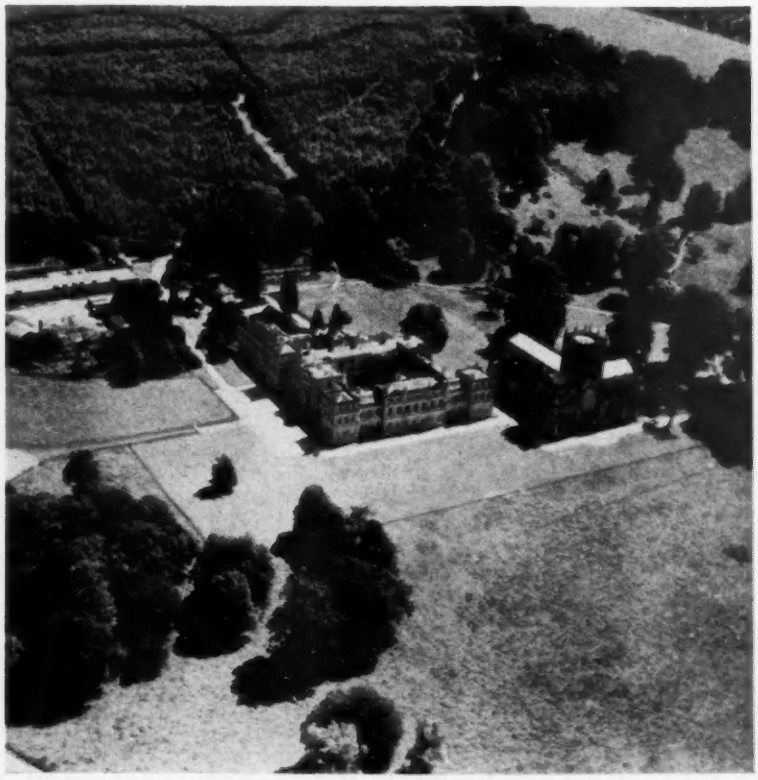
With its wonderful valley site six miles from Blandford, its great church, its lakes taking the place of the village no longer there, Milton has a quality not quite like anything else to which it may be compared. Its preservation has been strongly supported by the Georgian Group.

Scheme of Proposed Additions

Mr. A. R. F. Anderson, FRIBA, writes: My knowledge of the building starts about six years ago when I was appointed consulting architect to the Council of the school to deal with appropriate alterations and additional ancillary buildings, and also to seek a grant under the provisions of the 1953 Act.

In January, 1955, a fire destroyed one of the wings, fortunately the least important, and for a while we were primarily concerned with restoration and improvements to that part of the building. Latterly, we have been concerned with maintenance of the fabric and the building of masters' houses and technical classrooms in the school grounds. The executive architect is Mr. F. Aylmer Howard, ARIBA, of Blandford, and the bulk of the work of restoration and new building has been carried out by Messrs. John H. Wilson and Sons, Ltd., of Parkstone, Dorset. It is undoubtedly a most interesting mansion as can be seen from the aerial view which was taken before any of the new buildings were started.

Milton Abbey, from the air



A Prefabricated House by Frank Lloyd Wright

Emphasis on Bold Horizontal Lines

From a New York Correspondent

FRANK LLOYD WRIGHT turned out several prefabricated designs in the two or three years before his death. The characteristic traits of Mr Wright's designs are apparent from a look at the illustrations of the structure designed by him on Staten Island, near New York. The house gets its ground-clinging appearance from the horizontal lines of its timber exterior. This characteristic is repeated with a mahogany-boarded treatment of the interior walls.

The house, built on a hillside at Richmond, Staten Island, has two levels. The main level has 2,500 sq. ft. of living space, divided among four bedrooms, two baths, powder room, living room, dining area, and a combination family room and kitchen. The master-bedroom is 16 ft. by 20 ft., the others being two of 12 ft. by 14 ft. and one 16 ft. by 20 ft. Living room is 26 ft. by 20 ft., the dining part 10 ft. by 12 ft., the family room 12 ft. by 16 ft. and the kitchen 15 ft. by 14 ft. A gallery on one side of the house is 40 ft. long. A row of small windows lines the gallery, which has mahogany walls.

The lower level has 1,250 sq. ft. of unfinished basement area opening on to a spacious terrace measuring 25 ft. by 10 ft. There is also a 24 ft. by 20 ft. carport.

Constructional Details

The house was made by Marshall Erdman Association, home prefabricators, in Madison, Wisconsin. All components of the house, with the exception of the foundation, the masonry and the heating and plumbing system, were made at the Erdman factory and were transported to Staten Island by road.

The exterior of the 103-ft. long house is covered with sand-textured masonite with mahogany trim. Inside walls are faced with ¼ in. mahogany plywood in full size 4 ft. by 8 ft. sheets, with a somewhat smaller mahogany batten also on 16 in. vertical centres.

The ceilings are of plasterboard painted with sand-coloured and sand-textured paint, specified by Wright. The same colour and the same textured paint is used inside on the walls of family room and kitchen, similar in shade to that of the painted masonite exterior.

Fireplace as Focus

The focal point of the living room is an imposing fireplace. It is made of red brick with a concrete slab hearth and a steel grate. The fireplace has an opening that is 56 in. wide by 64 in. high, and offers the utmost in heat reflection.

The kitchen has specially designed mahogany cabinets with Formica tops, and an island counter for the range with iron pot and rack hung from ceiling.

Masonry is regular-sized red brick with smooth face. It was used for all exposed masonry, both interior and exterior, and is laid with ⅜ in. horizontal joints raked ⅜ in. deep and with flush vertical joints.

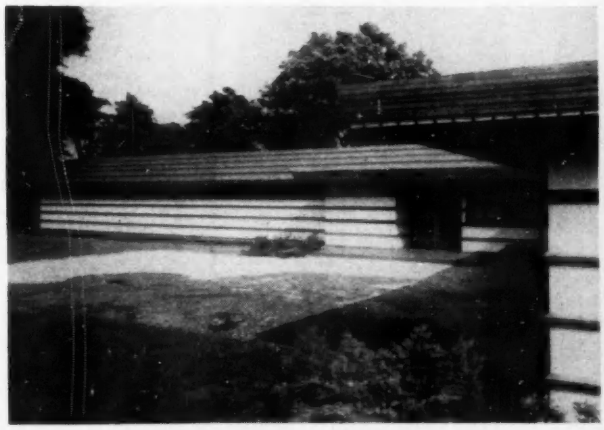
Framing under floors is 2 in. by 10 in. joists at 16 in. centres, double under all parallel partitions, and covered with two layers of ½ in. plywood with a 15-lb. felt in between. A red rubber tile was especially manufactured to a colour tone specified by Frank Lloyd Wright. It was made in 1 ft. squares and was used over plywood at the entry, the kitchen, the family room and the three children's bedrooms.

The roof shows a 2 in. by 8 in. framing on 16 in. centres with a specially prefabricated double ridge, pre-assembled at the factory and pre-bored for ventilation. The pitched roof is covered with ⅜ in. plywood, with a special 2 in. by 2 in. batten strip and ½ in. plywood placed on top to make the Bermuda roof design according to the Follansbee Company's specifications, and then covered with 40-lb. Follansbee terne (an alloy of lead and tin on a base of sheet steel), and finished with two coats of paint. All roof edges are treated with mahogany fascia specially milled to the architect's design.

The basic package cost the owners $18,500, plus $1,500 for shipping charges. It cost an additional $35,000 to put in the foundation, to erect the house, and to buy and install the plumbing and the combination heating and air conditioning system. $7,500 was paid for the ¾-acre hillside site. The total spent on the house —excluding the furnishings—came to $62,500 (about £22,300).

It took about four months to erect the house. The work was done by local contractors under the supervision of Morton Delson, a former pupil of Wright's. He is a member of the Frank Lloyd Wright Foundation, which was established after the architect died, for the purpose of continuing his work. The foundation offers the services of a supervisory architect free, to be sure that a Wright design is executed as the architect conceived it.

Front view showing the characteristic horizontal lines of the design with (right) a general view of the living room



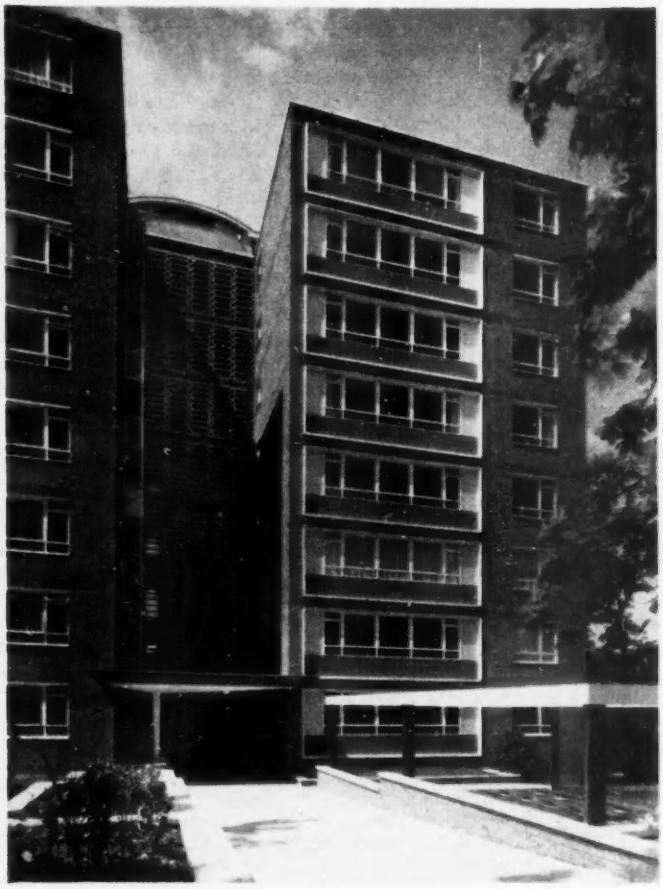
Flats and Houses at Dulwich

AUSTIN VERNON & PARTNERS, F/ARIBA, architects
DEREK LOVEJOY, MA, ARIBA, AMTPI, AIAA, landscape architect

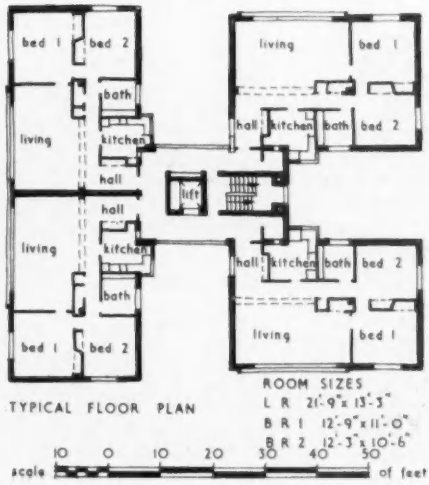
THIS DEVELOPMENT of flats and houses is one phase in a long-term programme for the Dulwich College Estate, in which the existing large Victorian mansions will be replaced.

The area concerned is 23½ acres in extent, of which nearly half will be landscaped and maintained by the Dulwich Estate for common use by the residents. The total scheme will provide 368 dwelling units of which 240 will be flats distributed in 8 multi-storey blocks, 52 two-storey houses, 57 three-storey houses, 18 semi-detached and one detached house. The principal planning feature is segregation of vehicular and pedestrian traffic. Private garages are arranged in groups adjacent to the perimeter ring road in the majority of cases. Pedestrian walkways are provided through the estate, particularly in the neighbourhood of the multi-storey blocks. Large areas of massed shrubs giving pleasant contrasts of texture and colour will be provided at focal points. Children's play spaces, areas for quiet relaxation of residents and generous paved areas are provided at appropriate points. A mother and child sculpture by Patricia Rowland, ARCA, is to be positioned near one of the eight-storey blocks.

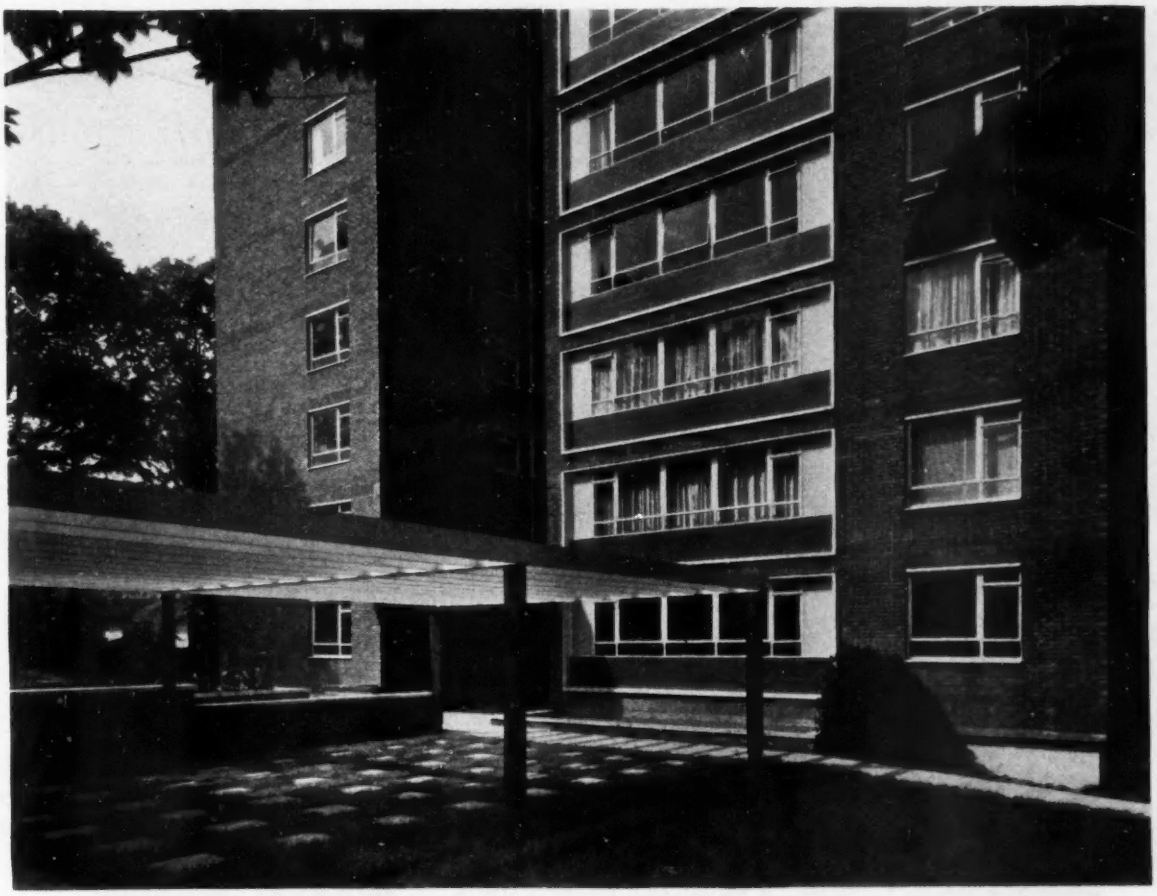
The flats are semi-open-planned. Construction is r.c. framework with brick cladding. Living rooms have wood block flooring and a fitted bookcase. Kitchens have built-in refrigerators. Central heating is by Halcyon space heater with ducts to all rooms.



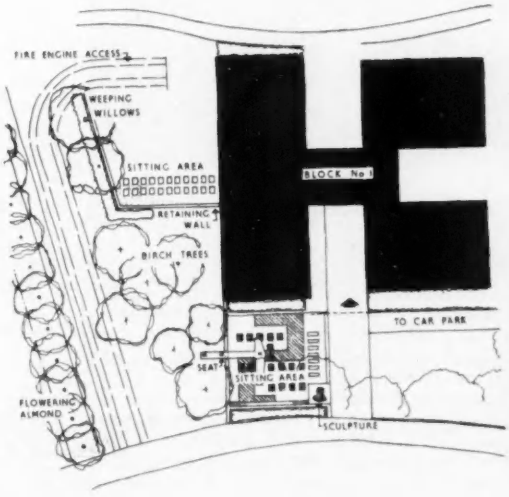
Eight-storey block with decorative grille to the lift core



WATES BUILT HOMES LTD., general contractors



Pergola and landscaped forecourt to the flats

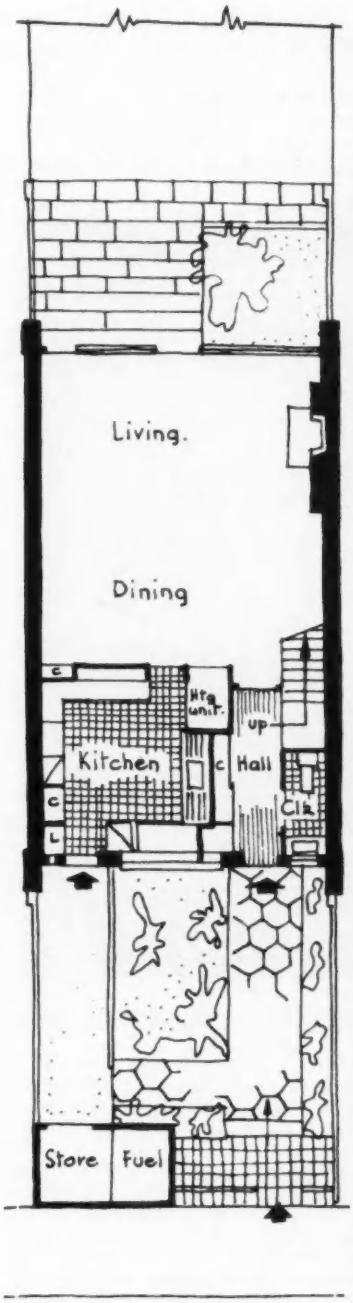


A 21 ft. lounge in the 10-storey blocks

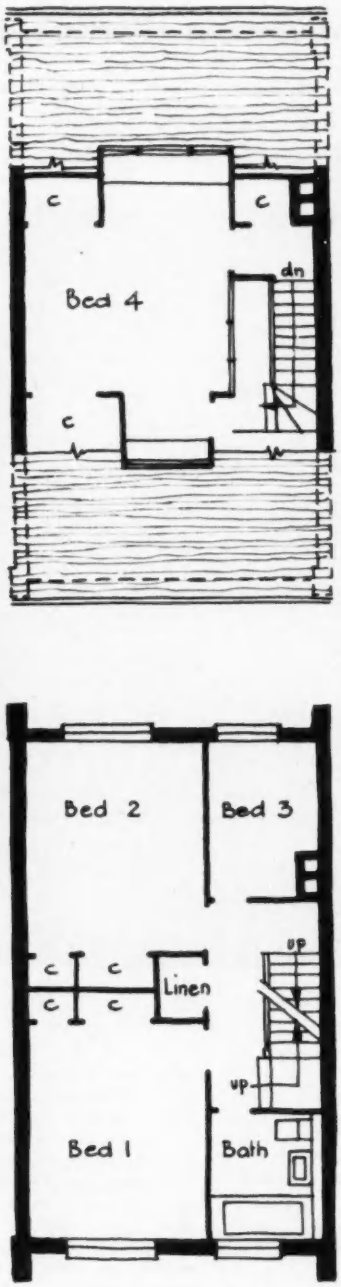
Patio entrance to a 4-bedroom terraced dwelling

THE TERRACED HOUSES are of crosswall construction, and elevational treatment is varied by alternative cladding of clay vertical tiling, cedar shingles, vertical boarding and decorative glass panels. A pleasant feature is made of the front entrance by forming a paved and screened patio, entered directly off the pedestrian way. A fourth bedroom is provided by utilising the roof space at the centre of the house and inserting dormer windows. The living room is 350 sq. ft., with one wall totally glazed and opening on to the rear paved terrace. The kitchen has a double-bowl stainless-steel sink unit and a range of Wrighton 'Californian' cupboards finished in polyester. Central heating is provided by twin Halcyon heaters with an output of 34,000 BTU.

All properties in the redevelopment scheme are being sold on 99 year leases at prices varying between £4,000 and £6,000. Ground rents are £16 to £35 per annum. Garages for the flats are available at an extra cost of £250 and a ground rent of £2 per annum.



GROUND FLOOR OF
4-BEDROOM HOUSE



FIRST & SECOND FLOORS
Scale: 1 in. = 10 ft.

1

2

3

4

Above, interiors of a 4-bedroom house. 1, fourth bedroom in the roof space. 2, kitchen. 3 and 4, opposing views of the living room showing the glazed rear wall, central heating unit cupboard, and fireplace containing an under-floor draught Baxi grate

Sub-contractors & suppliers:

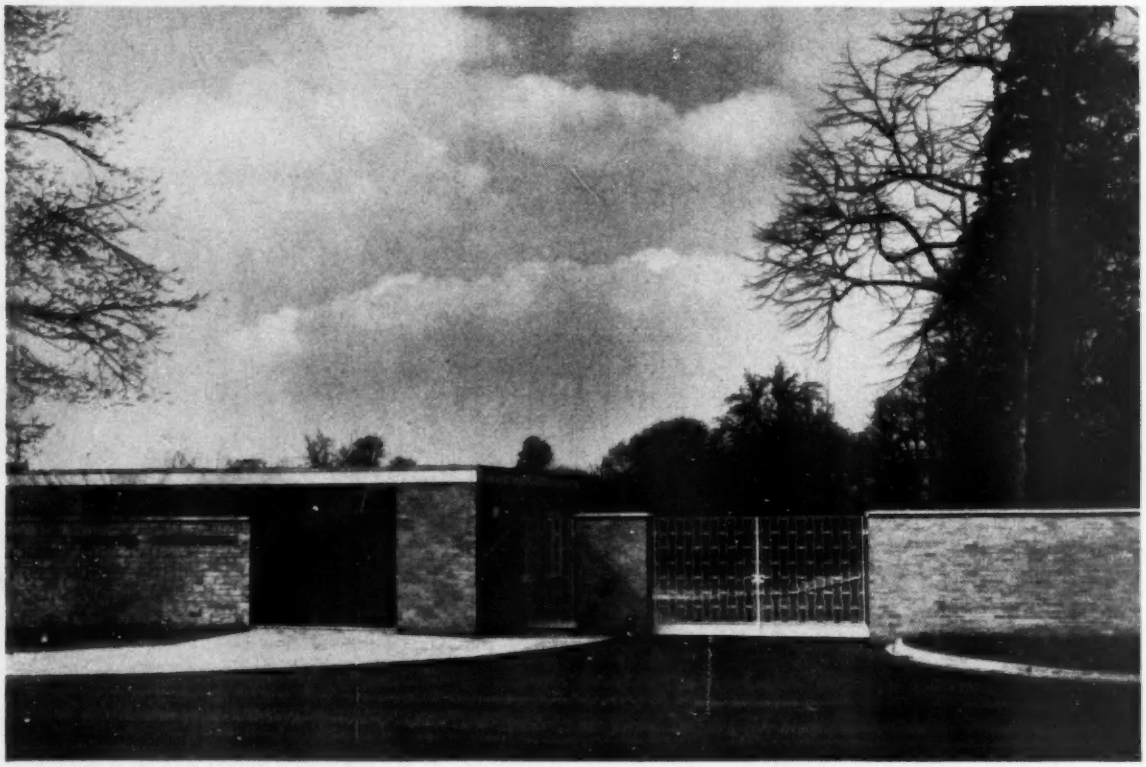
Structural concrete frame: The Modular Concrete Co. Ltd.; *bricks:* Richard Parton (Builders' Merchants) Ltd., Hall & Co., Standard Brick & Sand Co. Ltd.; *metal windows:* Crittall Manufacturing Co. Ltd.; *joinery:* James Longley & Co. Ltd., H. & C. Janes Ltd., Davies Bros. (Timber & Joinery) Ltd.; *kitchen units:* F. Wrighton & Sons Ltd., E. & H. Grace Ltd.; *doors:* Gliksten Doors Ltd.; *lifts:* Express Lift Company; *electrical installation:* A. & V. Electrics Ltd.; *light weight roof screeds:* Isocrete Ltd.; *asphalt:* Paramount Asphalte Company, Excel Asphalte Company; *reconstructed stone:* Modular Concrete; *external ceramic tiling:* Herbert J. Nutman Ltd.; *glazing:* Faulkner Greene & Co. Ltd.; *hardwood flooring:* Stevens & Adams Ltd.; *thermoplastic tiling:* The Marley Tile Company Ltd.; *internal glazed tiles:* Herbert J. Nutman Ltd.; *plumbing:* David F. Wiseman & Sons Ltd., R. H. Adams (Forest Hill) Ltd., J. Conlon & Sons Ltd., A. J. Padden; *Halcyon installations:* South Eastern Gas Board; *terrazzo:* Brockwell Mosaic Co. Ltd.; *sanitaryware:* Alfred Goslett & Co. Ltd.; *textured ceilings:* Halford Jarvis & Co. Ltd.; *steel balustrades:* E. C. Blackmore Ltd.; *scaffolding:* Scaffolding (Great Britain) Ltd.; *natural stones:* South Western Stone Co. Ltd.; *electric fires:* Ferranti Ltd.; *solid fuel fires:* Richard Baxendale Ltd.; *landscaping:* Knowles & Weller Ltd.; *slates, tiles and shingles:* Eastwoods (Sales) Ltd.

Crematorium in Worcester

JOHN S. WILLIAMS, AMICE, MIMUN.E, MIWE, Worcester city engineer & surveyor

A. G. ARNOLD, ARIBA, chief assistant architect

R. V. BANKS, ARIBA, senior assistant architect, in succession to A. S. HARPER, ARIBA



Entrance to the crematorium, and separate office block

THE CREMATORIUM is situated in the grounds of Astwood Cemetery. A new entrance has been formed, linked to a separate office block, both of which are carefully designed to avoid a forbidding appearance. The office contains a public waiting room, superintendent's office, general office, records room and staff toilets. A garage and toilets for outdoor staff are attached.

The site of the crematorium is approximately 300 yards from the new entrance and the first glimpse of the main building is obtained as vehicles turn round the bend at the far end of the drive. It is constructed with hand-made golden buff bricks and Bath stone dressings. The tower, with its stainless steel finial, dominates the building. A number of different materials have been used externally to give interest. Particularly noticeable is the wrought iron grille adjoining the coursed random rubble walls to the 'porté-cochère, also the coloured anodised aluminium feature to the gable end of the chapel. The roof of the chapel is in super purity aluminium.

In planning the Crematorium particular consideration has been given to the circulation of the mourners and the vehicles in order that successive parties are kept separate. The vehicles, having brought the coffin and mourners to the chapel by the way of the 'porté-cochère,' will then bear left and wait at the paved area to the north. The mourners will follow the coffin into the chapel and take their seats for the service after which they will leave by the west doors. After obtaining a glimpse of the Remembrance Room the party will proceed along the covered way past the Garden of Remembrance, to their waiting vehicles. In the meantime a new cortège could be arriving at the 'porté-cochère.'

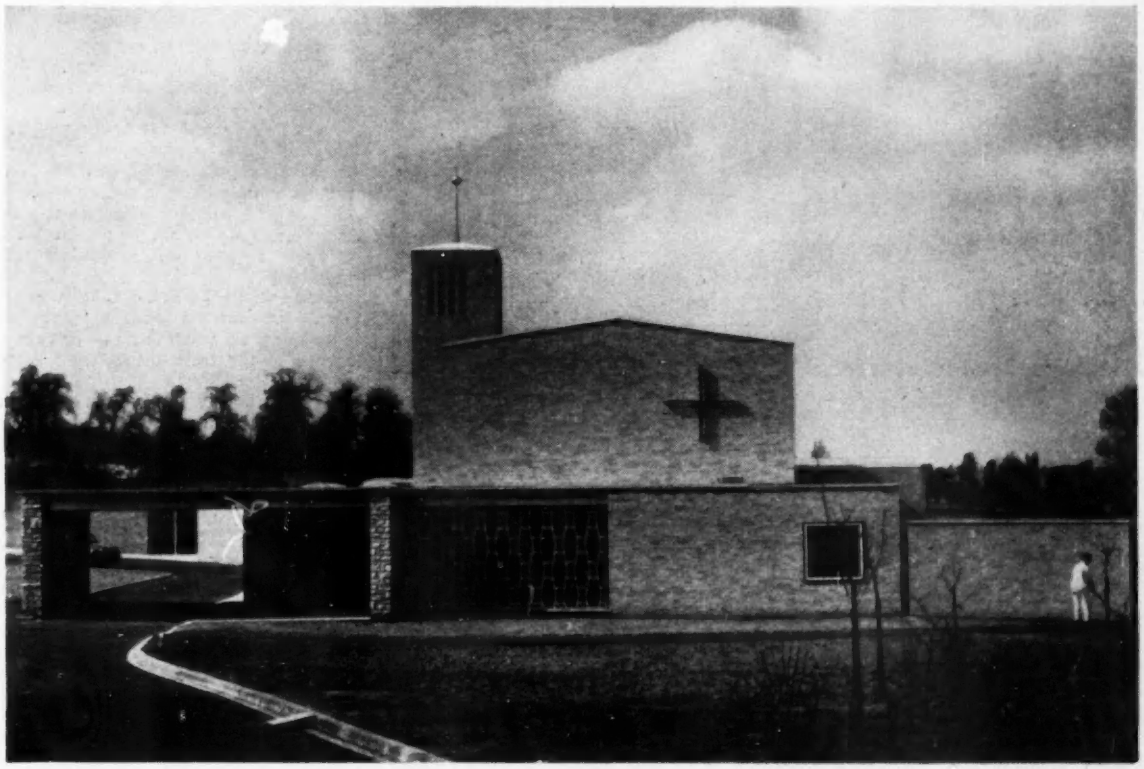
The Chapel, which will seat eighty persons, has as its focal point the altar with a removable cross overhead. The main high window is positioned to light this area and so assist in focusing the attention of the congregation on the altar rather than the catafalque which is sited to one side. A system of visual electric signals hidden from public view allows the officiating clergyman at the lectern to control the proceedings in the music room and transfer room. Music is provided by high quality sound reproduction equipment to the transfer room and music room.

The floor of the chapel is in cork tiles for quietness, with paving to the area linking the altar and catafalque. Main walls and ceilings are finished with acoustic plaster and Danish panelling. Afrormosia is the main joinery hardwood used throughout the crematorium.

Heating is by electricity, to allow intermittent use of the building and quick warming up. In the chapel, warmth is quickly conveyed to the congregation by means of tubular heaters under the seating. A gas fired twin cremator of the latest design is installed in the furnace room and there is also provision for the installation of a third cremator at a future date.

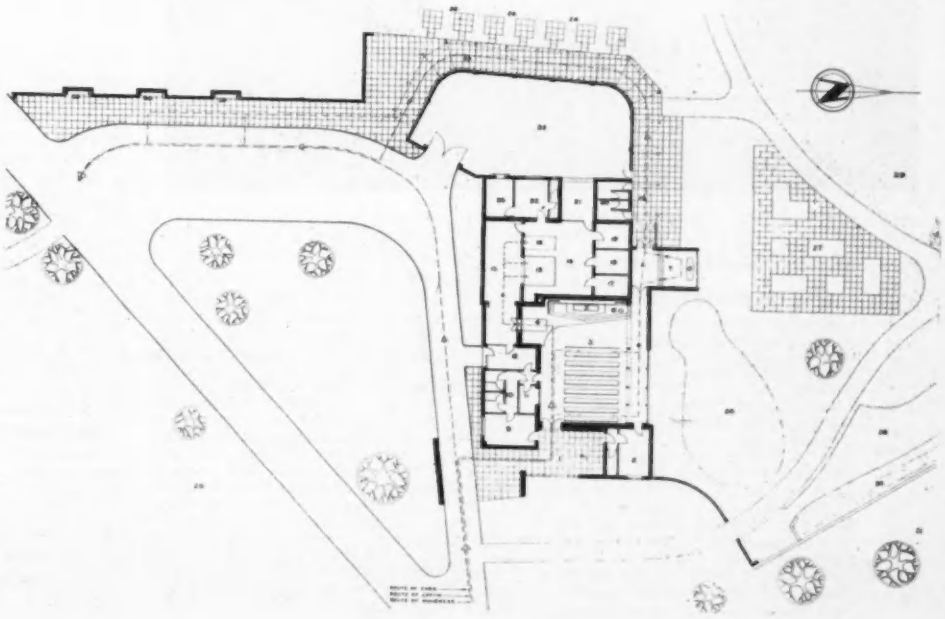
The Garden of Remembrance, comprising an area of approximately 3½ acres, is designed informally and over 1,600 flowering trees and shrubs have been planted. The total cost of the crematorium and roads was £56,888.

J. W. BEVAN, AIQS, senior assistant quantity surveyor
JOHN HALL (PERSHORE) LTD., general contractor

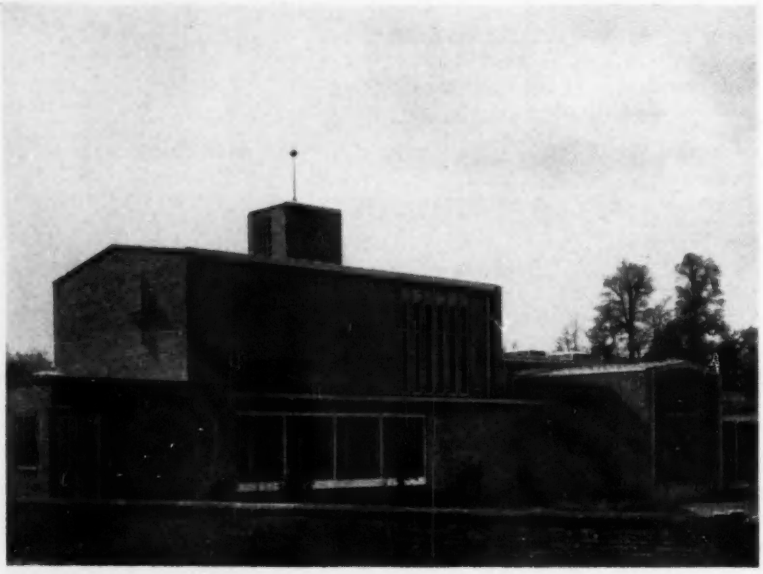


'Porté-cochère' and decorative metal grille, east elevation

GROUND FLOOR
Scale: 1 in. = 56 ft.



Key:
1. *'Porté - cochère,'* 2. *Vestry*, 3. *Chapel*, 4. *Catafalque*, 5. *Altar*, 6. *Lectern*, 7. *Remembrance Room*, 8. *Book of Remembrance*, 9. *Waiting*, 10. *Toilets*, 11. *Music Room*, 12. *Viewing Room*, 13. *Transfer Room*, 14. *Furnace Room*, 15. *Twin Cremators*, 16. *Future Cremator*, 17. *Meters*, 18. *Pulveriser*, 19. *Urn Store*, 20. *Toilets*, 21. *Porch*, 22. *Attendant*, 23. *Fan Room*, 24. *Service Yard*, 25. *Covered Way*, 26. *Floral Tributes*, 27. *Rose Garden*, 28. *Shrubbery*, 29. *Garden of Remembrance*, 30. *Seats*, 31. *Burial Ground*, 32. *Stream*.



North elevation, and chapel interior

Crematorium in Worcester

Sub-contractors & suppliers:

Reinforcement: G.K.N. Reinforcements Ltd.; *precast floor beams:* Cowley Concrete Co. Ltd.; *structural steelwork:* Metal Constructions Ltd.; *metal lathing:* Trussed Concrete Steel Co.; *bricks:* Himley Brick Co. Ltd.; *natural stone:* Bath and Portland Stone Firms Ltd.; *aluminium roofing:* Norman & Underwood Ltd.; *asphalt and felt roofing:* Ragusa Asphalte Paving Co. Ltd.; *random paving:* 'Noelite' Ltd.; *cork tile and thermoplastic flooring:* Malvern Tile Company; *slate window surrounds:* Bow Slate & Enamel Company Ltd.; *metal windows:* Gardiner Sons & Co. Ltd.; *decorative glass:* Glass (Coventry) Ltd.; *marble:* Marbello & Durus Ltd.; *ironmongery:* Dryad Metal Works Ltd.; *wrought ironwork and gates:* Bigwood Bros. (Birmingham) Ltd.; *pressed metal fascia and gutters:* Leonard Cook & Son Ltd.; *cruciform:* James Gibbons Ltd.; *finial:* Leonard Cook & Son Ltd.; *lightning protectors:* W. J. Furse & Co. Ltd.; *electrical installation:* Midlands Electricity Board; *gas installation:* West Midlands Gas Board; *cremators:* Dowson & Mason Ltd.; *sound reproduction equipment:* Johnsons Sound Service; *paint:* Smith and Walton Ltd.; *curtains:* Hall & Dixon Ltd.; *furniture:* Bath Cabinet Makers Ltd.; *books of remembrance:* Alfred C. Foley, ATD, FRSA; *access road:* Hadsphaltic Construction Co. Ltd., Asphalte & Public Works Ltd.; *landscaping:* En-Tout-Cas Co. Ltd.; *garden seats:* L. M. Furniture Ltd.

Letter to the Editor

The Precinct in Urban Renewal

SIR,—We have now had enough experience of the precinct in contemporary town planning practice—for example, at Coventry and in the New Towns—to appreciate its value as a space in which pedestrians can move about freely for shopping, etc., without the risk of being maimed or killed by motor traffic. It is easy enough to incorporate the feature in new layouts, but less so to built-up areas.

Lord David Cecil has lately suggested that the University quarter of Oxford should be segregated in this way, and there is something specially appealing in the idea of a precinct of precincts. But even here it would not be practicable or desirable to shut out vehicular traffic completely. As Lord Parmoor has pointed out, tracks would have to be left for the delivery of goods to shops and to building sites and for the passage of luggage to and from the colleges, hotels and private dwellings.

May I suggest that our planning authorities, if they are not doing so already, might give intensive study to the problem of adapting the precinct to existing built-up areas? Where drastic replanning is to be carried out the difficulties are likely to be more procedural and financial than physical. In most cases, however, it seems doubtful whether comprehensive redevelopment will be the rule; already much piecemeal rebuilding is being done in suburban areas. Existing layouts, therefore, with modifications, may often have to be accepted, and the making of precincts may not be an easy matter. Each case, of course, will have its own peculiarities and need to be dealt with on its merits. Where the principal shopping centre is (as it generally is in the older suburbs) the main road, it might be possible, in some cases, by closing a length of this to create a precinct of the necessary size and character, turning existing roads on either side into by-passes, which could also provide vehicular access to the rear of precinctual business premises.

A related matter that needs study is the practicability of creating residential precincts, especially in the older inner suburbs. The roads of many of these areas, laid out sixty or seventy years ago on the grid-iron or corridor road pattern, are mostly narrow and were never intended to carry much more than light occasional traffic such as tradesmen's delivery vans. Today, with the increasing congestion on main roads, many of these local roads are being used as through ways by heavy traffic. With their frequent right-angled intersections, views along which are often obscured by walls, hedges and trees, they are veritable death-traps. Most of them ought to be prohibited to through traffic, but this is more a matter of administration than planning.

Precincts, of course, are only a part of the larger planning, but in view of the current drive for urban renewal they deserve special study.

SENEX.

More Everyday Things

BY ARTHUR W. KENYON, CBE, FRIBA

3. The Golden Key

WHAT HAS HAPPENED to the Ceremony of the Golden Key? This was the ceremony to end all ceremonies on a building contract. After the opening of tenders, the laying of the foundation stone, the topping-out, and the other sacramental occasions of the building journey, the climax was reached with the opening ceremony when the architect solemnly presented a beautiful golden key to the dignitary invited to play the part of opener.

The architect had gone to a lot of trouble to design the key, or to select one already made for just this purpose, with a blank end ready for cutting to fit the main door of the building on the opening day. The official guests gathered at the entrance to the building at the appointed hour and after the appropriate introductory speeches had been made, the architect bowed and presented his carefully chosen key to the official opener. This was the most anxious moment of all. The silent prayers offered up by the architect-opening-tenders were no more than pious hopes compared with the fervent supplications offered by the architect-presenting-key.

Once the door opened, Olympus had been reached. With any luck at all, the last cleaner would have disappeared from view before the ceremonial procession entered. Bouquets for everyone was the

order of the opening day, but the biggest bouquets of all were for the architect on this his day of days. The following day and for the subsequent days of his practising life he would hear what was wrong with the building, but on the day when he gave the golden key in its velvet-lined box, the building was perfect.

Sometimes the key ceremony was followed by the unveiling of a plaque—a ticklish business, too, but it was for someone else to worry when the string was pulled and the plaque remained still decently covered.

I do not hear much of golden key openings today. We have a more realistic approach to these things, and we invite our official personages to see the building furnished and in action instead of inviting them to take their chance with the rest of us on getting in it at all. Presentations there may be, but the realistic attitude persists and gifts are chosen with more circumspection, be their donor architect or builder. There must be many eminent personages in the land, however, who can still boast the full set of silver trowel, mallet and golden key.

Redevelopment in Guildford High Street

Details of Projected £½m. Store

THE ARCHITECTS, Messrs. Lewis and Hickey of 130 Regent-street, London, W1, have released details of the redevelopment of 62-64 High-street, and 44-46 North-street, Guildford, as a new store for Marks and Spencer Ltd. The project, which is to cost anything up to half-a-million pounds, is of considerable interest, particularly to those concerned with the preservation of the town's picturesque High-street. The existing façades of 62 and 63 High-street are listed as being of historical interest and, on the basis that they are preserved to the satisfaction of the Guildford Town Council, the Council granted consent to the development proposals.

The design of the North-street façade is one that will fit into the general North-street scene. It will comprise a large shop front entrance and a vehicle entrance. The two-storey frontage will be in marble, stone and brick. The new building will have frontages to High-street and North-street of approximately 72 ft., and cover a total area of about 25,000 sq. ft.

There will be a basement under the whole site, the front part of which will be used for the accommodation of stock, and the rear part a goods reception area and private car park. This area will be served by a double track vehicle ramp from North-street to enable vehicles to be taken off the road. The building throughout will be of steel frame construction.

Principal contractors for the project are Bovis Ltd. Local labour will be employed as available, and with sub-contractors, some 180 to 200 men will be engaged on the new building, which is expected to take about 12 months to erect.

Mis-use of Word 'Architect'

Successful ARCUK Prosecution

ON August 10, at Gravesend Petty Sessional Court, David George King, of 1a Devonshire-road, Gravesend, pleaded guilty to a charge that he, whilst not being a person registered under the Architects (Registration) Act 1931, carried on business under a style containing the word 'architect.' The printed heading of a letter produced in evidence included the following words:

'Modern Homes (Gravesend),
Chartered Architect.
Manager: D. G. King.'

The defendant was fined £25 and ordered to pay 10s. costs.

*** We have been asked to make it clear that Mr. Donald George King, of Romford, who is duly registered as an architect and is an Associate of the Royal Institute of British Architects, has no connection whatsoever with the above case.—ED.

Visit to Italy for Architects and Engineers

Structural Concrete Committee's September Tour

A VISIT to Italy for architects and engineers has been arranged by the Joint Committee on Structural Concrete from Saturday, September 17, to Sunday, September 25 of this year, to inspect old and new architectural and structural work of outstanding interest in that country.

From Saturday to Thursday the party will be based on Milan and for the remainder of the time on Rome. Sunday will be spent inspecting the latest buildings in the centre of Milan, including the completed Pirelli building.

On Monday the party will visit Turin, where the work to be seen will include Nervi's original exhibition halls and his new hall under construction, and a further exhibition hall under construction which has been designed by Monsieur Esquillan and Professor Levi. Professors Levi and Nervi have both agreed to meet the party and explain their work. Tuesday is being set aside for visits to the Triennale architectural and design exhibition.

The journey to Rome on Thursday morning will be by air. The programme for Friday will consist of an inspection of the three Olympic stadia designed by Nervi, Nervi's elevated road, new flats on the via del Corso and the St. Joseph Hospital.

The party will travel by air. It is intended to make an early start each morning in order to leave the greater part of the evening free for participants. The total estimated cost is £120. Applications for places on the visit should be made to the Secretary of the Committee at Terminal House, Grosvenor-gardens, London, SW3, as soon as possible. Ladies will be welcomed.

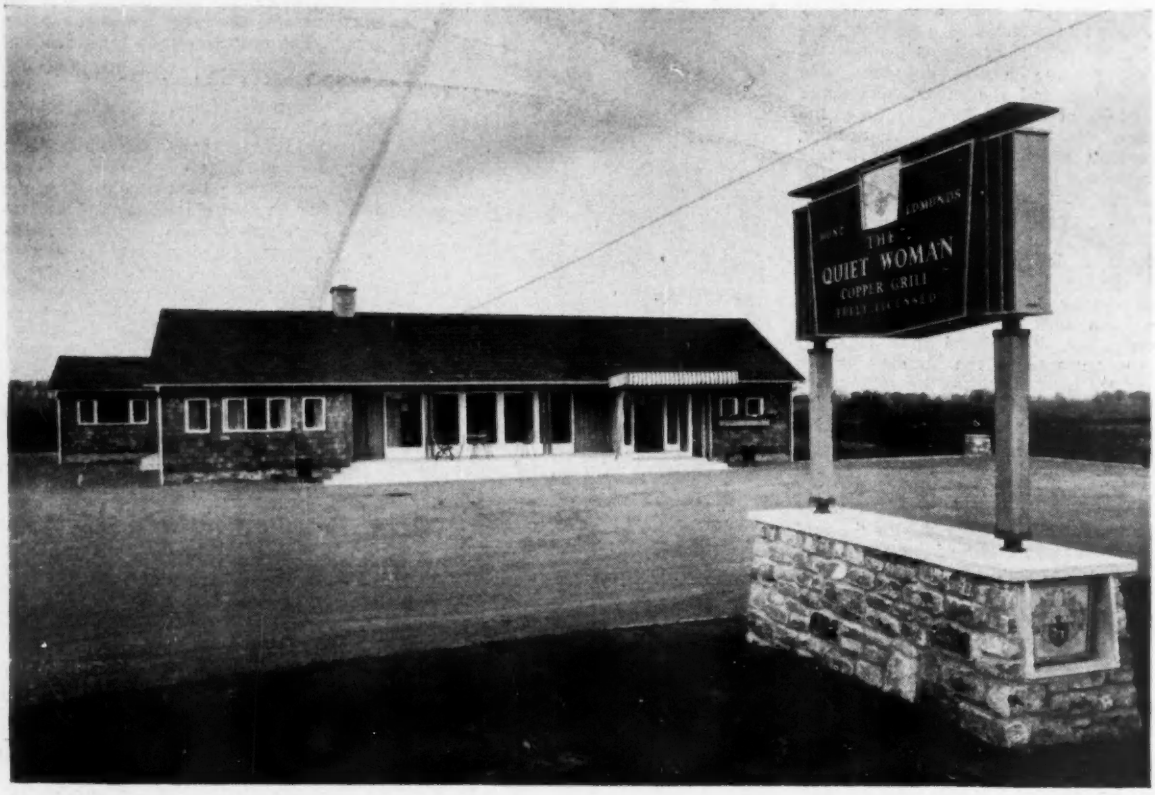
Institute of Builders' Dinner

THE ANNUAL DINNER of the Institute of Builders will be held in Guildhall on Tuesday, February 14, 1961.

Public House at Southcombe, Oxon

For Hunt, Edmunds & Co., Ltd.

designed by L. J. MARKS and H. HEATH, brewery estates department



Main elevation and terrace entrance to foyer and lounge bar

Buttery bar and servery

THIS PUBLIC HOUSE is situated at the junction of the Oxford-Stratford road and the London-Worcester road, and is intended to cater particularly for travellers.

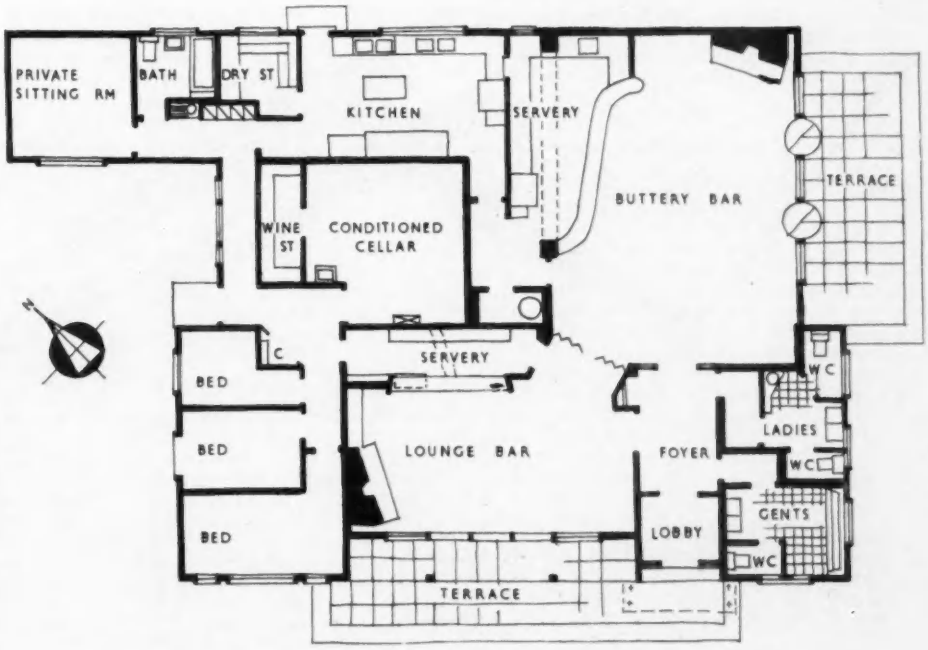
The building is a prefabricated structure by W. H. Colt, Son and Co., Ltd., consisting of a timber framework clad with shingles, on a brick base and concrete foundation. The sole stipulation of the makers was that the design module of 4 ft. should be strictly adhered to. Construction began on October 1, 1959, and the premises were officially opened on April 9, 1960.

To obviate excavation costs, the beer cellar is at ground level, and temperature is controlled by an air-cooling plant and space heater. The interior design and furnishings and the planning of catering arrangements were carried out by J. P. D. Braddell, supervisor for the brewery company.

C. PETHER & SONS LTD., general contractors

Lounge bar with sliding door separation from the buttery bar

GROUND FLOOR
Scale: 1 in. = 16 ft.



Sub-contractors & suppliers:

Electric installation: Vincent's Electrical Services; *flooring:* Limmer & Trinidad Lake Asphalt Co. Ltd.; *car park:* Norman W. Dunn & Co. Ltd.; *cellar cooling:* J. & E. Hall Ltd.; *Prescold bottle cooling and refrigeration:* Southern Electricity Board; *signs:* Pierce Signs Ltd.; *awnings:* Dean's Blinds (Putney) Ltd.; *water heating:* Aidas Electric Ltd.; *space heating:* Dimplex Ltd.; *furniture:* Conran Furniture, G. H. & S. Keen Ltd.

Maidstone By-pass Bridge

Launching of Suspended Span Beams

PRECAST CONCRETE BEAMS weighing 165 tons and measuring 83 ft. in length were rolled into position during the days of June to form a bridge which will take the western section of the Maidstone By-pass Motorway over the River Medway near Aylesford. They are probably the biggest ever to be made and erected in this way.

The bridge will be 325 ft. long and 87 ft. wide. The main span over the river is to be 145 ft. long consisting of two cantilever arms and a central suspended section. The bridge deck is in reinforced concrete, 10 in. thick and supported on four hollow girders of prestressed concrete spaced at 22½ ft. centres and cross connected at about 20 ft. intervals by reinforced concrete diaphragms.

A requirement of the navigation authorities is that no temporary supports may be placed in the river during construction because of possible danger to or from the barges which use the river. Although the cantilever arms protrude out over the river, their method of construction was not unduly complicated by this requirement. However, special measures involving heavy temporary bridging have been adopted for the central suspended section. The girders of this section have been constructed in a casting yard on the west bank of the river and were manoeuvred into position over the river so as to 'seat' on the cantilever arms extending from each bank.

The operation of launching the first girder is illustrated in the accompanying drawing which shows the girders of the cantilever arms substantially complete, extending out 20 ft. from the columns on the west bank and 44 ft. from the pier on the east bank. Steel joists in pairs were placed at the ends of three adjacent girders of each of these cantilever arms. They spanned the 15 ft. gaps between adjacent girders and served as supports for the temporary bridging.

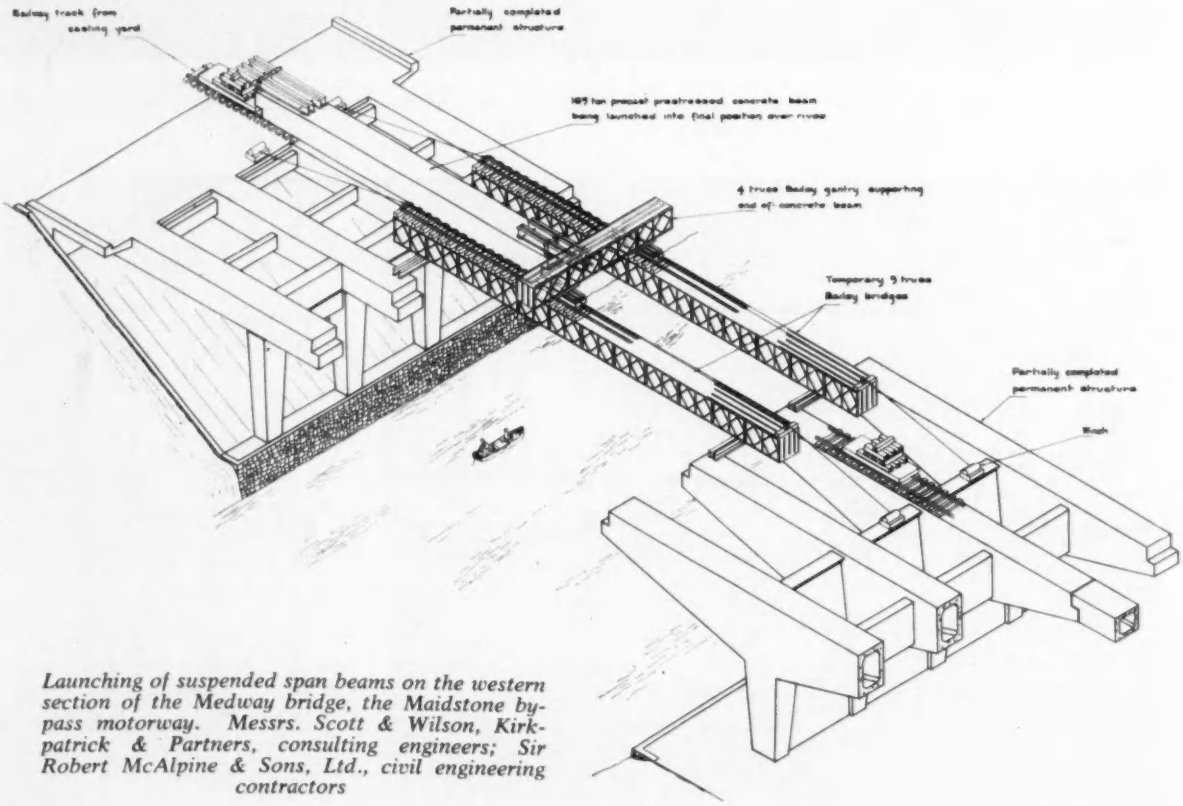
Using the Bailey Bridge

Two Bailey bridges, each made up of five Bailey trusses, were assembled on the west bank, rolled out over the west approach span girders and launched across the 90 ft. river gap in the usual manner. The bridges in position, rail tracks were laid on the upper chords and a travelling gantry assembled to span between the Bailey bridges. The gantry itself was made up of four standard Bailey trusses and bearing on bogies travelling on the rail tracks. This travel was controlled by power operated winches mounted on the east and west cantilever girders.

With the temporary bridging completed, the first suspended girder was lifted from its bed in the casting area. Bogies were run in under the projecting steel joists which were temporarily attached at each end of the girder. The weight of the girder was then transferred to the bogies by using jacks mounted on the latter. The bogies ran on rail track which extended from the casting yard and thence out over an inner girder of the west approach span. There was a slight incline towards the river and the progress of the girder on its two bogies was controlled by winches.

Upon reaching the end of the west cantilever girder the assembly was halted and the weight of the precast girder transferred from the leading bogey to timber packing erected on the end of the west cantilever girder. The leading end of the precast girder lay between the two Bailey bridges and the travelling gantry was used to transport the unloaded bogey across the river gap to rail track laid on the east cantilever girder.

The gantry then travelled back across the river to pick up the leading end of the precast girder and transport it across the gap. With this operation completed, the gantry and the jacks mounted on the bogies were employed to seat the girder on timber packing erected at the ends of the east and west cantilever girders. Jacks incorporated in these packings gradually lowered the girder into final position on its bearings at the ends of the cantilever girders.



Launching of suspended span beams on the western section of the Medway bridge, the Maidstone by-pass motorway. Messrs. Scott & Wilson, Kirkpatrick & Partners, consulting engineers; Sir Robert McAlpine & Sons, Ltd., civil engineering contractors

In a similar manner the remaining precast girders will be lifted from their casting beds and placed into position.

The bridge has been designed for the Ministry of Transport by Messrs. Scott & Wilson, Kirkpatrick & Partners, consulting civil and structural engineers who are also supervising its construction. The contractors are Sir Robert McAlpine & Sons, Ltd.

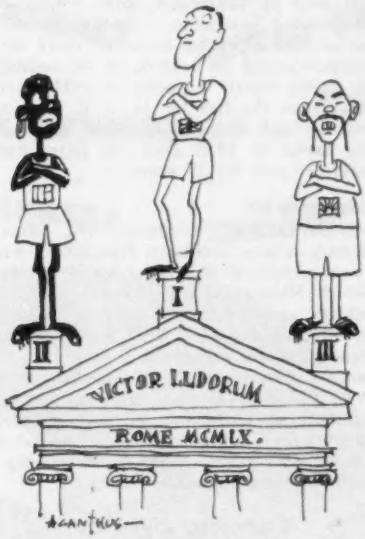
Prestressed Group's Comment

'Longest Prestressed Concrete Span in World'

THE Prestressed Concrete Development Group welcome the announcement that the new Medway Bridge is to be built of prestressed concrete.

First, and naturally, says a statement issued by the Group, because it will be the longest span prestressed concrete bridge in the world and it has been designed by British engineers.

Second, and perhaps of more fundamental importance, it has proved, and decisively proved, the overall economy of prestressed concrete for bridges of spans far greater than had hitherto been considered economically possible. The difference in initial cost of building the Medway Bridge of prestressed concrete rather than steel is appreciable, and to this must be added the considerable future saving in maintenance costs. The increasing spans which it can economically bridge, like the increasing heights it can economically build, are striking testimony to the dominance of concrete in the structural field. This dominance is increased and assured by the research and development work—in the laboratory and in the field—which constantly extends the economical application of concrete to wider fields.



As an example, the comparatively new technique of model testing was employed by the Cement and Concrete Association at the request of the consulting engineers to investigate the effect of certain novel features which the consultants proposed to incorporate in the prestressed concrete design. The results of these tests on an approximately 1/13th scale model in concrete of part of the bridge verified the assumptions of the designers.

News of the Week

Offices for Oxford University

A BUILDING to provide additional accommodation for the central offices of Oxford University is to replace the Indian Institute at the eastern end of Broad-street. The Institute, which was completed in 1896, will be demolished.

The University announced on August 11 that Mr. Philip Dowson, ARIBA, an associate of Ove Arup and Partners, has accepted the invitation to be the architect for the new building, which will be given priority in the building programme for 1964-68. Mr. Dowson is the architect for the Somerville College extensions on the Little Clarendon-street frontage, which are expected to be started next year.

Decisions on the division of the accommodation for administrative staff between the new building and the Clarendon, which houses the University Registry and University Chest, will be made when reports are received from the architect and the structural engineers who are investigating the Clarendon building and the space between it and the Bodleian Library. Excavations have been made to see whether it will be possible to construct an underground car park.

Private Development of Town Centre

BILSTON BOROUGH COUNCIL in Staffordshire are considering the compulsory purchase of the entire town centre with a view to its development by a private development corporation. The area includes the town hall. If the scheme, which has been approved in principle, materialises the Edinburgh Murrayfield Real Estate Company, of Edinburgh, would lease the land from the council for 99 or 121 years. The company have been asked to prepare estimates to enable further consideration of the scheme, which is thought to involve between £5m. and £6m.

Some 120 shops and other premises, including the town hall, would be demolished and replaced by more than 200 shops in a traffic-free centre, a municipal hall, offices, and blocks of flats. The scheme is favoured by the council because of cuts in Government planning grants; the substitution of block grants based on former expenditure is totally inadequate for the council's purposes. Mr. A. M. Williams, the town clerk, has stated that there would be no question of buying properties at low prices under compulsory purchase orders. The plan has met with opposition from the Conservatives on the Labour-controlled council, and from local traders who fear high rents.

Hemel Hempstead Extension

HEMEL HEMPSTEAD DEVELOPMENT CORPORATION announced details, on August 11, of a new master plan for Hemel Hempstead. The ultimate population is to be increased from 60,000 to 80,000. A new neighbourhood—Grovehill—is to be built to the north-east of the town with a population of 9,000 and covering 400 acres. The industrial area is to be extended. The Development Corporation's chief architect is Mr. H. Kellett Ablett, FRIBA, MTPI.

Tour of Pedestrian Shopping Centres

IN VIEW of the continued interest that has been shown in pedestrian shopping centres, the Town and Country Planning Association's Planning Forum has arranged a visit to two such centres, at Hatfield and Harlow New Towns, to take place on Saturday, September 17. The tour will also include other new buildings of interest in the two towns. The party will meet at Allsop-place, NW1, at 9 a.m. and will return at 8.15 p.m. Details from The Secretary, Planning Forum, TCPA, 28 King-street, WC2. The cost to members is 25s. (non-members, 27s. 6d.).

Lost Doctorate Notes

MR. J. LANE, a young architect from Cambridge, Massachusetts, who arrived in this country from Germany on August 11, has appealed to the thief who stole luggage valued at £400 from a parked car in Sussex-gardens, Paddington, W, on August 14, to return one of the cases. The case in question contains notes which have taken Mr. Lane and his wife, Barbara, a year to compile. Mrs. Lane, who is a tutor in architecture at Harvard, has been in Germany for the past year collecting data for her doctorate; she is writing a history of Nazi architecture. All her notes have disappeared together with a collection of photographs made during five months by Mr. Lane in Germany.

'Their Name Liveth'

THE LATEST PUBLICATION of the Imperial War Graves Commission under the title 'Their Name Liveth' (Vol. IV, part 2), gives illustrations and descriptions of burial grounds in the United Kingdom containing graves of Commonwealth airmen who died in the 1914-18 and the 1939-45 wars. Most of the cemetries are small and simple, set in peaceful countrysides amid lawns and trees, sometimes in or adjacent to ancient churchyards. Historic churches appear in many of the backgrounds, adding to the calm beauty of the scene. In addition there are some impressive photographic views of Sir Edward Maufe's Commonwealth Air Forces Memorial at Runnymede. Air Chief Marshal Sir Philip Joubert contributes an introduction. The book is obtainable from the Imperial War Graves Commission, Wooburn House, Wooburn Green, High Wycombe, Bucks., price 5s. 7d.

Murals Underground

LONDON TRANSPORT has tried out a new idea to brighten the subway entrances to Finsbury Park Underground station. Nine wall paintings have just been completed in these subways by students of the Department of Fine Art of the Hornsey College of Art. The positions occupied by the paintings were not suitable for advertising or transport information, and London Transport asked the College to co-operate in improving the appearance of the entrances to this busy station without incurring heavy expenditure.

This is the first time an Underground station entrance has been decorated in this fashion. Finsbury Park with its two long subway entrances is well fitted for an experiment of this kind. One painting at each entrance—'Phases in Transport' at Station Place and 'The Sea' at Seven Sisters-road—is a true mural, being painted on the surface of the subway wall. The other seven paintings were painted on hardboard in the College studio and placed in position when complete.

'Human Problems in Industry'

THE DIFFICULTIES in personal relationships that arise through changes in the structure of management and the recruitment of scientists to industry during periods of rapid technical development have been studied by Mr. Tom Burns and Mr. G. M. Stalker, of Edinburgh University, in connection with a number of old-established Scottish firms which have recently entered the electronics industry. The essence of their findings is that troubles arise more from a failure of integration than from human weaknesses. The full report, 'Management of Innovation,' by Tom Burns, is to be published in due course by Tavistock Publications Ltd., of London. In the meantime, Mrs. Honor Croome has recast the findings in a short but readable summary published in booklet form for the DSIR by HMSO, Charles House, 5-11 Regent-street, London, SW1, price 2s. 6d.

NWEABI Courses

AT THE LAST meeting of the North Western Educational Association for the Building Industry MR. S. J. DOBSON addressed the members on 'The Organisation of Building Foremanship Courses.' Mr. Dobson, who is the responsible lecturer for these courses at the College of Building, Liverpool, gave an excellent resumé of the development of these courses and the parallel ones for clerks of works. He pointed out the difficulties of getting the right people on to the courses—the experienced foremen were too busy and the inexperienced had really not sufficient background to benefit. The talk provoked considerable discussion and it was decided by Council at their afternoon meeting to follow this talk up by inclusion of a symposium on the subject in the 1960-61 programme.

Combe Down Secondary School

THIS SCHOOL AT BATH, designed by Messrs. Howard V. Lobb and Partners, and illustrated in our issue of August 12, was built for Somerset County Council and not as stated in error in the article.

Long Family Link

WHEN MR. GILBERT L. TURNER, borough surveyor of Tenterden, Kent, retires at the end of September, a family link will be severed which has lasted 60 years. Mr. Turner joined the service of the council as public health inspector in 1914 when his father, the late Mr. W. L. C. Turner, was borough surveyor. He took over from his father in 1935 after the latter had held the post for 35 years.

Appointments

MR. R. ALLPORT WILLIAMS, MBE, FRIBA, deputy county architect, Lancashire, has been appointed county architect to the North Riding County Council. MR. R. BOOTH, ARIBA, principal assistant county architect, Lancashire, has been promoted deputy county architect.

MR. A. J. BOWMAKER, senior assistant in the Area Planning Department of South-East Hampshire, is to succeed MR. NORMAN GOMMERSALL, the deputy area planning officer, who has been appointed development officer at Gosport, Hants.

Coming Events

WEDNESDAY, AUGUST 24

ARCHITECTURAL ASSOCIATION.—'The Secondary Modern School, Richmond, Yorks,' by Denis Clarke Hall, and 'A Primary School,' by D. Medd.—An illustrated talk for visiting overseas architects and students. 36 Bedford-sq., WC1. 6.15 p.m.

SATURDAY, AUGUST 27

TOWN PLANNING INSTITUTE.—Town & Country Planning Summer School. St. Andrew's University (until Sept. 3).

Professional Announcements

MR. LESLIE H. KEMP, FRIBA, MRAIC, who, recently returned to England after twelve years in practice in North America, is now working in association with MESSRS. YATES, COOK & DARBYSHIRE, architects and surveyors, of 43 Great Marlborough-street, Regent-street, London, W1. Until the last war his offices were at Great James-street, Bedford-row, WC1.

MR. P. J. COZENS, AMIHVE, has relinquished his appointment as heating and ventilating engineer with the Norwich City Council and entered into private practice as MESSRS. P. J. COZENS & PARTNERS, consulting engineers, 30 Unthank-road, Norwich, Norfolk, Nor. 28E, and will be pleased to receive trade catalogues, etc.

MR. PHILIP S. BEACH, AIAS, corporate quantity surveyor, has commenced practice at 33 Southampton-street, Strand, London, WC2 (Tel.: Covent Garden 0077), where he will be pleased to receive trade literature.

A Hundred Years Ago

From The Builder **of August 18, 1860**

CRAVEN HOTEL, STRAND.—In these times of hotel building by companies, through whom it may be hoped London before long will be well supplied in this particular, it is but fair to mention what is being done by private owners. Mr. Tapster has enlarged and nearly rebuilt the Craven Hotel, Craven-street, Strand, under the guidance of Messrs. Banks and Barry, and has effected a very great improvement. A lofty coffee-room, of considerable pretensions, has been formed, and the general arrangements for the accommodation of the public are very satisfactory.

Competition News

Re-development of Piccadilly

AN ARCHITECTURAL COMPETITION for the redevelopment of Piccadilly Circus, 'open to students of architecture and planning,' has been promised by the 'Star' newspaper, on lines approved by the RIBA. The aim of the competition is to give students an opportunity to tackle a problem of importance and topicality—the comprehensive redevelopment of the heart of a major metropolis. For the purpose of this competition a student 'is one who has passed the Intermediate examination of either the RIBA or the Town Planning Institute, or an equivalent exempting examination but is not a registered architect or town planner at the time of entry.' Competitors must be resident in Great Britain or Northern Ireland, and entry may be made in two ways: (a) group entry; (b) individual entry.

Assessors are E. Maxwell Fry, CBE, BArch, FRIBA; Edward D. Mills, CBE, FRIBA; Noel Moffet, BArch, AMTPI, FRSA. Premiums are £300, £200 and £100. Conditions are obtainable from: Piccadilly Circus Architectural Competition, 'The Star,' 12-22 Bouverie-street, London, EC4, to which address students must send notification of intention to enter not later than Monday, October 3. Closing date is Monday, December 19, and results will be announced in the 'Star' during the week beginning January 16, 1961.

Competitors may take an area up to but not exceeding 500 ft. in any direction from the Shaftesbury Memorial ('Eros'). The competition is confined to the study of Piccadilly Circus and its immediate surroundings but in order to solve the problems of redevelopment, consideration must be given to traffic of all kinds originating outside the area. State the conditions: 'It is a realistic operation, and competitors are therefore bound by existing regulations. They are required particularly to study the Ministry of Housing and Local Government* publications: "Redevelopment of Central Areas"; "Report of the Public Inquiry concerning the Monico Site," by C. D. Buchanan.'

Reproduced with the conditions are an air view of the Circus area, the Ordnance Survey for the area, and a cut-away drawing of the Underground station.

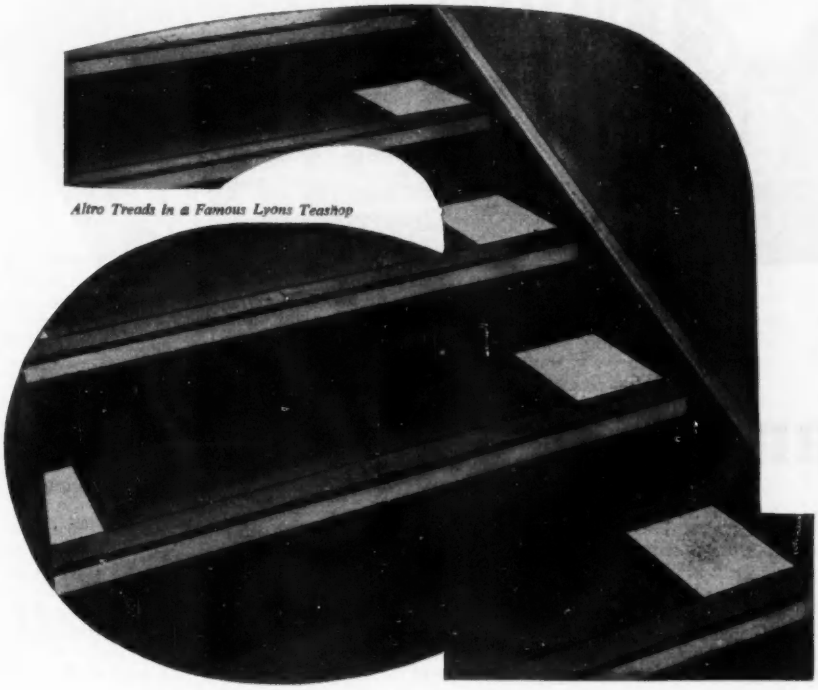
Competitors are required to submit: (a) a block model of the circus to a scale of 1:500; (b) plans, sections and elevations to the same scale; (c) one sheet, 30in. by 40in., of perspective sketches, in black and white or colour, showing the character and atmosphere of the proposed development; (d) a short typewritten report.

* 'Redevelopment of Central Areas,' published by HMSO for the Ministry of Town & Country Planning (1947) is out of print but may be consulted in libraries; Mr. Buchanan's report will, we understand, be issued with the Conditions.—ED.

CONCRETE STAIRCASE? METAL STAIRCASE?

WIDE STAIRCASE? NARROW STAIRCASE?

OUTDOOR STAIRCASE? INDOOR STAIRCASE?



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A House 'Off the Peg'

Satisfactory Accommodation at Moderate Expense

BY R. RANDAL PHILLIPS, HON. ARIBA

HAVING BEEN OBLIGED to move from the little Georgian house in Surrey where I had lived for more than forty years, I started looking for a house elsewhere—a house 'off the peg.' I had a fancy for the south coast, and after various journeyings I came across a small estate in course of development at St. Leonards-on-Sea, Sussex. Here, on the slope of a valley, a series of bungalows were being offered for sale freehold, in 1958, at £2,600 plus £175 for a garage forming part of the structure. The bungalows were designed by a local architect (Mr. Norman A. E. Wyatt) and built by a local firm of builders (Messrs. George Stone (Hastings), Ltd.).

The plots were 40 ft. in width and 100 ft. in depth, the frontage line being set back 25 ft. The site slopes fairly steeply from north to south and is bisected by a roadway which leads up from a main road at the bottom to a roundabout at the top. The soil is Sussex clay. This works into mud after rain, and to counteract this propensity it is necessary to form concrete paths for clean access around the house and, where required, across the garden.

Convenient Plan

The bungalows offered for sale were of two types, one with two bedrooms, the other with three. The former suited my needs best. I made no alterations in the stock plan, but slightly changed the arrangement of the kitchen, as described later.

It will be seen that the plan is L-shaped, the living-room being at the front of the site and the two bedrooms at the back, with kitchen, bathroom and wc tucked in between, and a corridor giving access from the hall and front door. Under actual living conditions I have found the plan to be most convenient. In the kitchen the stock plan had a larder and coal store at one corner, next to the side door, with a sink against the inner wall. This arrangement left a space where a table could be set for meals. I preferred, however, to have meals in the living-room. A line of cupboards was therefore formed across the wall dividing the kitchen from the living-room. The centre cupboard has a service hatch with shelves for china in daily use at table, and under it is a built-in refrigerator. On the right is a cupboard which keeps brushes and brooms ready to hand yet tidily out of sight, and on the left is a cupboard for large china and kindred items not constantly needed.

Above these cupboards are smaller ones extending to the ceiling and thus avoiding dust traps. The sink is a porcelain-enamelled one with double drainers under the window, and on the return wall are a gas cooker and an independent boiler. After trying various fuels for the boiler I found that the best was anthracite nuts. The boiler is connected to a 30-gallon lagged copper cylinder in the hot cupboard at one corner of the hall. It is not designed to heat radiators, but I found that the supply of really hot water was so abundant that I decided to instal a copper wall radiator in each of the two bedrooms. With a little extra firing they have proved quite effective. The surface area of the radiators is far below what would be specified in ordinary practice, but the heating efficiency is sufficient to take the chill off the bedrooms in winter. There is no upkeep as with oil heaters, no risk of fire, and the running cost is far less than it would be with electricity.

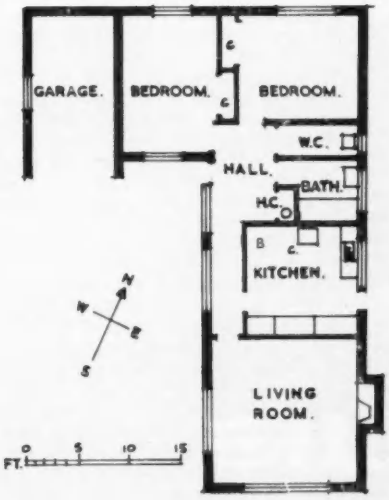
Owing to the slope of the site, the living-room is set high up, and one has the feeling of looking out from an eyrie. The room has a range of windows 8 ft. wide facing south and another range 6 ft. wide facing west; thus it is flooded with sunshine. The fireplace is set in a position away from draughts, and, like the boiler fire, has a gas poker point close by.

The bedrooms are divided by a staggered wall which provides a built-in cupboard in each with good hanging space and sufficient depth to take coat hangers across.

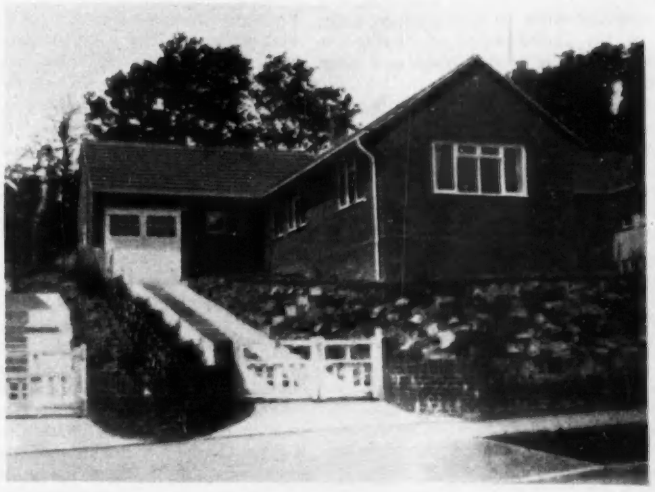
Conventional Construction

Altogether, this bungalow has turned out to be a very comfortable habitation. The construction is in conformity with the specification of the National House-Builders' Registration Council. Outside walls are hollow with a variegated facing brick of reddish-brown colour. The roof is laid with brown concrete tiles; windows are painted light cream; and the whole of the interior—walls, ceilings and flush doors—is finished in cream, giving a pleasant uniformity. The rooms have boarded floors covered with carpet in the living-room and bedrooms and with linoleum in the bathroom, wc, hall and corridor. In the kitchen, in place of a timber floor covered with plastic tiles, I had quarry tiles laid on concrete, and this has proved to be most serviceable. The garage has a concrete floor, a pair of wooden doors with top lights, and there is a window in the side wall.

It is only after personal experience of an appliance in daily use, or living in a house over a fairly long period, that the deficiencies (or merits) are discovered. 'If ever I build again' is too familiar an expression to need emphasis. In the present case there is nothing that I would alter radically, though additional space in the bedrooms (at, of course, additional expense) would be a considerable improvement.



View from south showing ramped drive-in



Building on the Lines of Ancient London

Economies Through Precision Site Surveying

BY GORDON TOMALIN

FEW may be aware of the manner in which, through the application of precision site surveying, the old lines of frontages of London buildings are providing, both for architect and client, more economical arrangements in the planning of structures.

For some 30 years or so a study has been made of various surveying methods as well as the arrangement of streets, and in particular where, on Ordnance Maps, the streets appear to be reasonably at right-angles one with another. The older surveying methods, for example theodolite and triangulation pattern measuring, were found not to provide a ready viewing of the dimensional relationship between frontages of sites, street roadway and pavement lines, and the principles of precision surveying methods were applied with good results.

In studying the former layout of London revealed on old Ordnance Maps—as well as the more modern—it was seen that although the street lines at a corner site of a block of buildings were seemingly not quite at 90 degrees one with the other, by making reconnaissance to the full extent of the street frontages another aspect became apparent. This inclined to substantiate the theory that in the very early days, hundreds of years ago, those concerned with construction, in setting out the roads and frontage lines of properties, set out the streets by using their own individual methods of right-angle line arrangements. It was after all a natural thing for them to do.

Crude Methods of Delineating

The theory was that having done this, the roadway would have been laid, and some kind of marking provided—perhaps in a form of pegs—delineating the numerous plots and their frontages at each side of the streets. Thereafter, possibly by the very nature of the crude pegging-out procedure, some who built would work to one side of a marker and others would work to the opposing side; thus at the initial stage of setting-out creating what can be described as a wavy line overall.

This 'out-of-line' line would not at that time be of much concern because the precise building regulations of the modern world would not have been in existence.

As time passed the original frontages would suffer further change through the demolition of old buildings and the erection of new. In some instances this may well have had the effect of rectifying the original slight error and in others of amplifying it.

To demonstrate the possibility that the original streets and frontages were set out with corners at approximately 90-degree angles one with another, an experiment in precise measurement affecting the relationship of the whole street or block of streets was carried out, and some startling results achieved.

It was discovered that with the joining of certain defined and sensible points at distant ends of streets the angle at the corners was so close to 90 degrees as to warrant the experimental drawing-in of the old assumed original line throughout each street. This revealed that the change of line from that which existed was worth examination, this being in extreme cases half a degree and in the better ones but a few minutes and seconds of angle out of 90 degrees. Of course, distance on angle became important, and the application of half a degree error to lengths of say 900 feet showed a discrepancy of about 4 ft. at the distant end, far too big a measurement to correct in a closely built up and congested area.

Squaring-up Procedure

Nevertheless, looking at many of our street lengths and relating these in terms of 100 ft. lengths, a 15 minute angle meant on that length only a change of about 5 in. At smaller angles or those nearer to 90 degs. than this assumed 90 deg. 15 min. 00 sec. angle; this distant measurement on the 100 ft. was seen to be relatively much smaller, and here it was that the study revealed possibilities of squaring-up proposed new building lines so to bring them back on the ancient lines of London.

The next objective was to seek a method whereby neither the freeholder nor the authority responsible for the public way either gained or would lose in area through re-arranging the lines, and it was seen that by positioning a calculated 'give-and-take' line, end for end, and around a block of buildings surrounded by streets, a true 90-degree rectangle could be presented. In some instances investigated the calculations showed an error of as much as 8 in. out of square—end for end—over about 300-odd ft., and in the opposing direction about 4 in. out of square in 400 ft. In such a case the 'give-and-take' box-form of line was drawn-up on the survey plan showing clearly and in precise manner the exact dimensional proposal in regard to squaring-up the whole.

Thus experiments which looked back in history allowed the architects, the freeholders and the authorities to look at not only a more economical form of structure lining for a proposed block but also allowed a sensible lining up of the street building frontages, possibly bringing these back very near to the original ancient plan.

It can be stated that many of the structures which in recent years have been built in London have been to front lines so re-arranged—by using these very minor measurement changes—to a sensible 'give-and-take' lining agreeable to all parties concerned. One should add to this the fact that the authorities and their officials in very many instances agreed without hesitation to such changes taking place.

It can also be said that, having come to such an agreement—which meant in effect that the points of the corners of the whole block necessarily must move slightly to accommodate the proposed new lines—they rightly insisted upon these corner points being dimensionally tied to selected points on structures on the far sides of streets all around the site, so enabling the officials at the appropriate time during construction of new work to have check measurements by which to ensure that the corner points were in fact those they had agreed upon.

This means that at each of the corners the new point of line intersection would not necessarily be precisely on that of the existing structure proposed for demolition, and in consequence the surveyors would physically set out the new points and thereafter by tape application furnish the diagonal tying measurements to the opposing fixed parts of buildings remaining.

It is also interesting to note that, through these precision survey experiments, where the physical application at a given corner could not be carried out, the authorities by the very nature of the survey production—and their ready ability to check related measurements—in some cases accepted calculated diagonal dimensions. It must be borne in mind, however, that in this acceptance there would be no opportunity of changing the position of a point once this was agreed.

Cross-Checking Results

The surveyor, having measured and calculated this whole re-arrangement towards a more economic form of construction, must clearly be confident that the whole multifarious measurement application was correct in every detail. This, when looked at in terms of responsibility, should not be, and in fact is not, a frightening one. The resultant data must be accurate where correct measuring is not only carried out but thereafter checked by mathematical and trigonometrical methods.

Such precise and satisfying analysis cannot always arise from older methods in surveying, for the surveyor using these would be confronted with so many varied calculations as to create a measure of uncertainty. His survey approaches to the overall problem must be so arranged that calculating is rendered in simple form, and easy proof of his measuring work is readily to hand.

So it is that the old lines of London may return in some streets when these are redeveloped. Indeed, in another aspect, many structures are today seen to rise in square blocks or rectangular shapes within the bounds of an irregular site. To achieve such economic forms of construction, the designer arranges for the construction of one or two-storey offspring buildings reaching out to the

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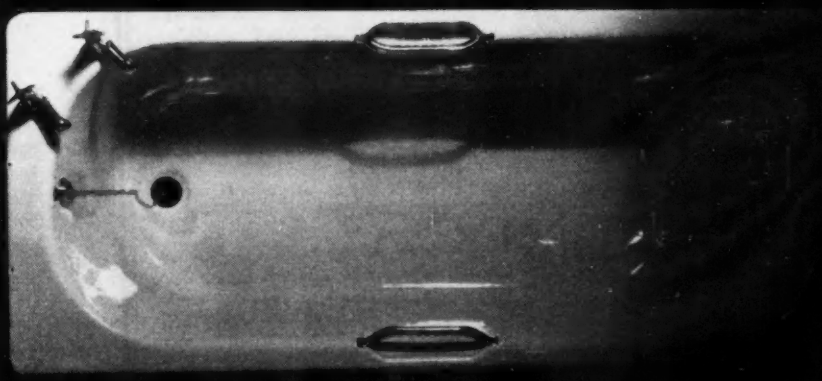

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street boundaries, isolating as it were the slightly higher cost work brought about through lines at a skew one with another. Even in such instances it has been possible, through the use of precision surveying methods, to provide the designer with accurate dimensions, thus enabling him in very many cases to prepare final layout plans and drawings of interior works all with full dimensions, and this right from the start of final construction planning work. It can be appreciated that domestically this also is advantageous in terms of staff usage economics for the planner.

Economy in Building

Accordingly, a study of the layout of old London contributed towards economic building construction today. In the light of the experiments described, the designer may not readily accept the lines of the existing corner structure without having such dimensional observations presented to him which show in simple form the true relationship of that corner to a 90-degree angle. He may, when presented with the minor difference in measurement decide to 'give up' an odd inch or so in order to allow for a squared-up two frontages for his new work, for in doing this most experienced men not only provide a slightly more economical job but greatly simplify also all of the office drawing-up work.

Moreover, the fact should not be overlooked that where the contractor is provided with full dimensional setting-out information, appropriately anchored to firm markings outside a site and found to be correct, he not only has a ready start on the job but is to some extent encouraged through the example of the surveyor's efficiency.

Redevelopment at Edinburgh

Contractors to be Given Charge of Architectural Design

EDINBURGH'S 4,000 prefabs will be replaced during the next few years by 9,000 flatted homes, costing about £18m. James Miller & Partners, Ltd., have been invited to redevelop a site at Longstone, and work on other pilot schemes at Muirhouse, Ferniehill, and Niddrie Marischal will commence next summer.

George Wimpey & Co. have been selected as contractors for the Muirhouse project, and a short list of seven other contracting firms has been drawn up for Ferniehill and Niddrie Marischal. It is expected that the corporation's housing committee will choose the contractors for these in September.

CLLR. NORMAN SMITH, convener of the housing construction sub-committee, explained (on August 4) why contractors had been preferred to architects. 'We felt that in these projects, which involve not only planning and building, but demolition or removal of the existing houses and alteration of site levels, a contractor would be better able to do the job. The contractors will employ their own architects and surveyors.'

'Might Take Ten Years'

The redevelopment of all 16 sites in the city on which there are prefabs might take up to ten years, Cllr. Smith said. They would be replaced by flatted homes on the 14 sites owned by the corporation, but no decision had yet been reached on the future of the other two, which were leased by the corporation.

He added: 'We are now more or less finishing with building on free sites on the outskirts of the city and are turning towards the redevelopment of central areas and temporary housing sites. The clearance of prefabs will be an important part of this programme.'

The housing committee have approved, in principle, proposals for the redevelopment of temporary housing areas submitted by a special sub-committee on alternative methods of construction. Redevelopment of each site will start with the demolition of a few houses whose tenants will be rehoused by the corporation. New houses will be constructed at high density on the area thus cleared, and tenants will be rehoused in them from another section of the same site. The demolition of that area will then commence, and the same pattern will be followed until the entire site is redeveloped.

The general policy outlined is that redevelopment and rehousing should be carried out on the basis that contracts are awarded to contractors for the complete redevelopment of particular sites. Talks are now going on with the Department of Health for Scotland and the Ministry of Works, and the planning committee are to consider appropriate increases in the densities of the areas.

The decision to employ contractors in preference to architects has not found favour among members of Edinburgh Architectural Association.

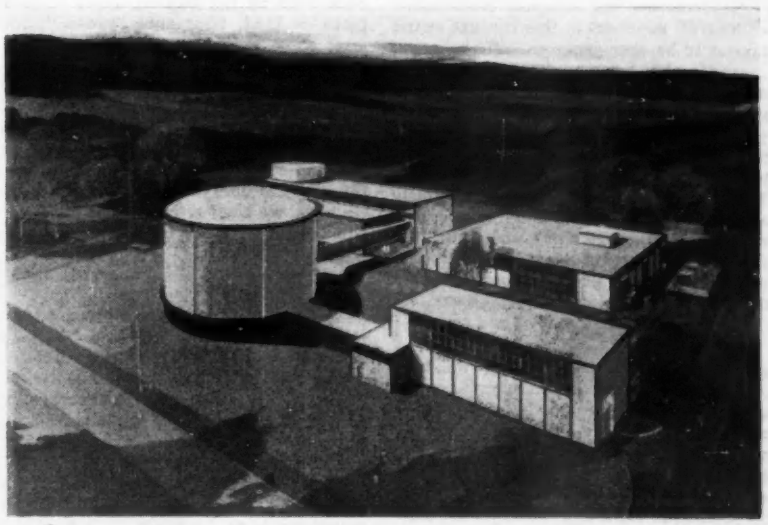
In an interview their secretary, MR. T. G. SALMON, said: 'This work would appear to come well within the professional scope of the architect's normal practice. The exclusion of the architectural profession will probably result in no financial saving to the corporation as, in effect, they will just be paying design fees to the contractor instead of to the professional architectural designer.

'I am advised that a further result of the decision may be the virtual exclusion of almost all the local builders who are city ratepayers as they normally work to plans prepared by professional architects,' Mr. Salmon added.

'It may well be that some of the town councillors were not aware of the implications of their decisions. It is to be hoped that the decision will be reversed and that the corporation will again follow the normal practice of employing architects to design new schemes.' — 'The Scotsman,' August 5.

The Peabody Donation Fund

MODERNISATION work with statutory grants is now in progress at five of the pre-1911 estates run by the Peabody Donation Fund. Similar work will probably commence during 1961 at eight other estates. This will necessitate an annual expediture of some £300,000, of which one-third is estimated as recoverable in grants. This is stated in the Fund's ninety-fifth annual report now published.



A general view of the 'Dragon' reactor project at Winfrith Heath, Dorset, for which Turriff Construction Corpn., Ltd. have been awarded the main contract. It involves the construction of the high temperature gas-cooled reactor experiment in which the UK Atomic Energy Authority are co-operating with eleven other European countries. The contract will be supervised by the construction branch of The Development and Engineering Group of the UKAEA, whose director is Mr. T. L. Viney, FRIBA, and whose chief architect is Mr. R. S. Brocklesby, ARIBA. Completion is expected by early 1963

Some Causes of Sub-standard Building

Labour-only Sub-contracting and Speculative Housing

BY A LABOUR CORRESPONDENT

MR. WOODBINE PARISH has stated at Darlington that there has been a noticeable increase in sub-standard work in recent months. By itself this is a very courageous thing to say and certainly not paralleled by previous presidents of the NFBTE. But Mr. Woodbine Parish went further—he said that the firms which were perpetrating shoddy building were concerned only with getting by with the lowest admissible standards of workmanship; with doing the job in the minimum time and with making the maximum profit, regardless of the plight in which the client or building owner might subsequently be left.

Such scathing comments are usual at the rostrums of trade union conferences; they are surprising, unprecedented and, for that reason, most welcome when said by the leader of the building employers. Of course, those who know Mr. Woodbine Parish are far from astonished. He has an impervious urbanity and charm which hides an extremely active intelligence. Moreover, he doesn't borrow his thinking. We may be quite sure that the many speeches he will deliver during his year of office will be from his own pen. But his open-hearted fraternalism is matched by a shrewdness and an innate courage which lead him to give voice to what some may think to be the most appalling industrial blasphemies. Not for him the pretty-pretty double-talk or a papering over the cracks.

Over-Generous Praise

Nevertheless, his complete exoneration of NFBTE members in this context would appear to be over-generous. He said that . . . 'Member firms of the NFBTE are in no circumstances prepared to lower their standards of integrity, competence, and performance to counter the kind of competition that firms of not altogether reputable character introduce.' H'm. Whilst Mr. Woodbine Parish obviously and sincerely believes this to be true, it is within the experience of some of us that the NFBTE crest on a firm's notepaper is not necessarily a warranty of high standards. 'No circumstances'? 'Integrity' . . . 'performance'?

No one will deny that the NFBTE stands for honourable and good building. All will agree that as an organisation it encourages honesty and fair dealing. We applaud its nobility of concept and we glory in the success it has achieved in this direction. For to be quite fair and reasonable there can be little doubt that its strenuous work and development since its inception has been beneficial both to the industry and the public.

But it is not easy to go all the way with Mr. Woodbine Parish. Names sometimes entail packdrill, yet there are some of the largest outfits in the business which are guilty of lending their titles to some pretty low quality work. To discover this one must avoid the office blocks, the local authority flats and houses, the well publicised new factory. On such jobs there are clerks of works and the clients are influential—they may also have some more building to offer in the future. Where we have to look is in the field of speculative housing, and this is surely where Mr. Woodbine Parish has also been casting his shocked eye.

Few Risks Taken

The term 'speculative' has lost much of its original significance since the war. Time was when the financiers of an estate took a genuine risk. They spent considerable sums on advertising and often had to wait for their money. There were cases where finally the houses had to be offered for rent. Not so today. Indeed the customers come flooding before the damp course is laid. They beg to be allowed to place a deposit. There isn't much speculation in that. So long as the land is adjacent to an urban area, so long as there are schools and shops within reasonable distance, the proverbial hot cakes are not in it.

Thus the pastures are very lush indeed. The vendors of a semi-detached within 15 miles of a city centre can almost name their own price. We have the example of a great national firm, with a household name, increasing the price of the houses on an estate by £300 twixt deposit and completion—take it or leave it. But we are all, all honourable men, and ambition should be made of sterner stuff. It is. Shorn of the astringency of buyers' resistance, bereft of the kindly guidance of a clerk of works, and bedevilled by the bidding-up of the next piece of land, your spec. house builder loses some of the incentive to guard his integrity.

It is to the highly commendable credit of many firms that in this milieu they give their customers a square deal and a soundly built job. For heaven knows they have no need to. The rest succumb to the easy chicanery of the market. Let it rip boys, we can't tell how long the boom will last; if we don't do it somebody else will.

They go to work like this: the land is surveyed, planning permission is obtained, the drawings are prepared, the roads pushed in and the services arranged. Now we are ready for the actual house building. But the builder employs only a few men; a general foreman and a small gang of labourers for unloading and stacking materials. For the rest it is almost wholly labour-only sub-contracting. These gentlemen come along with their gangs and the accepted technique is to 'get 'em up regardless.' Speed is the overall consideration, quality an also-ran.

Irregularities Invited

The pieceworker, as we erroneously but traditionally call the labour-only sub-contractor, has no roots or responsibility in the industry. Seldom has he any financial resources or established place of business. Legally he employs men but this is a convenient fiction for the main firm. Actually, he usually gets a weekly 'draw' so as to pay wages. The system is wide open to all kinds of irregularities —from income tax evasion to dangerous scaffolding.

It is well nigh impossible for the piecework master to keep his individual conscience unsullied. The entire working environment with its pressures focused sharply, almost exclusively, on the cash nexus prevents 'good workmanship' as is understood in the RIBA standard form of contract. The pieceworkers are faceless men; their names do not appear on the notice boards; they are expendable and they therefore couldn't care less. For this reason they are not to be blamed alone.

The building firms who operate thus are behaving with uninhibited cupidity. The practice is not new, of course—neither is prostitution. Both, however, are meretricious and unsavoury, although, one hastens to add, not against the law.

The trade unions have consistently appealed to the organised employers to forsake labour-only. Most have been sympathetic in principle but they have not found it possible to agree to a specific working rule which would outlaw this method of employment. This is a pity, for whilst the NFBTE remains silent the practitioners are able to ask blandly what covenant they are breaking.

It can be argued that there are cases where the pieceworker produces a fair job and where the main firm exercises a close supervision. This is true, but if we are referring to the general level it is, as Mr. Woodbine Parish avers, painfully shoddy. And it is becoming increasingly difficult to defend the practice.

Registration Council's Work

The National House-Builders' Registration Council has performed yeoman service in this matter. The idea is righteous and the Council is to be commended. It needs to be developed. At the moment there is no adequate machinery for the overseeing of sites so as to ensure that standards are observed, and thus a fine idea has failed to come to fruition. One member firm is developing estates (piecework operated) where the standards are appalling. In one house, which the writer inspected, the purlins were without packing from the corbels. This meant that the rafters suspended the purlins rather than vice versa. In the bathroom the piping had been negotiated through the walls and the holes were left as the plumber had cut them. Window frames had been fixed after the brickwork had been erected and under the cills there was a gap clean into the rooms. One could go on but, obviously, the reason for this was to be found in the division of responsibility through a plethora of labour-only sub-contracting.

Curiously enough, it is usually the

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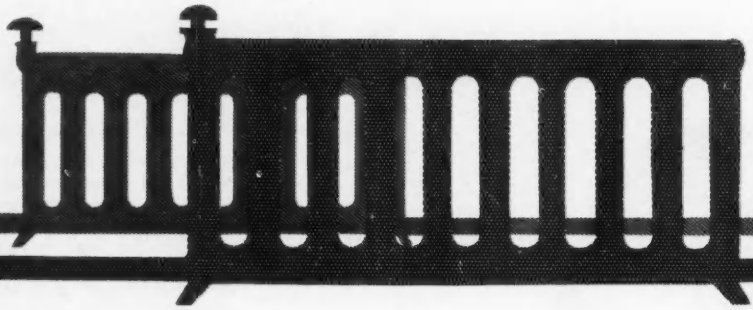

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smaller of the building entrepreneurs who produce the best built and finished houses. Presumably this is due to the closer supervision which the principal is able to give. Quite often the small house builder has only one site going at the same time, and it is common for him to spend some part of each day at the scene of operations.

This, of course, is impossible with the large national concerns. Indeed, it is questionable whether chairmen of such companies ever see more than a minute proportion of the work being carried out in their names, and inevitably the over-riding consideration is how much each department is making per annum. Here again, the infighting and prestige-seeking which is inseparable from such large undertakings means that the pressures are all towards the balance-sheet. Thus, if it is cheaper and more convenient to employ pieceworkers they will be employed.

Yes indeed, Mr. Woodbine Parish has opened out a considerable field of discussion and we should all be grateful to him for his courageous temerity.

Housing Progress Report

Completions in First Half of 1960

THE HOUSING PROGRESS REPORTS presented to Parliament as White Papers* by the Minister of Housing and Local Government and the Secretary of State for Scotland show that the number of permanent houses completed in Great Britain during June was 27,348 compared with 24,266 in June, 1959.

In the first six months of 1960 143,934 permanent houses were completed compared with 130,016 in the same period of 1959.

Detailed figures at the end of June were:

PERMANENT HOUSES AND FLATS COMPLETED

	Great Britain			England and Wales		
	Post-war total to June 30, 1960	Completions in June	Completions in 1960 to June 30	Post-war total to June 30, 1960	Completions in June	Completions in 1960 to June 30
By Public Authorities:						
Local authorities† ...	2,323,893	11,674	63,256	1,974,710	9,438	52,045
Housing associations ...	45,061	228	863	43,500	101	736
Government depts. ...	77,110	237	1,144	68,945	151	904
Total	2,446,064	12,139	65,263	2,087,155	9,690	53,685
By Private Builders ...	1,090,204	15,209	78,671	1,053,430	14,623	75,609
Total	3,536,268	27,348	143,934	3,140,585	24,313	129,294

PERMANENT HOUSES AND FLATS UNDER CONSTRUCTION

	Great Britain			England and Wales		
	Under construction at June 30, 1960	Under construction at Mar. 31, 1960	Under construction at Dec. 31, 1959	Under construction at June 30, 1960	Under construction at Mar. 31, 1960	Under construction at Dec. 31, 1959
By Public Authorities:						
Local authorities† ...	145,690	142,515	148,663	118,790	117,966	122,572
Housing associations ...	1,729	1,628	1,781	1,722	1,626	1,779
Government depts. ...	4,814	3,898	3,532	4,592	3,621	3,228
Total	152,233	148,041	153,976	125,104	123,213	127,579
By Private Builders ...	130,129	118,621	112,656	124,940	114,007	108,298
Total	282,362	266,662	266,632	250,044	237,220	235,877

† In Scotland includes houses built or being built by Scottish Special Housing Association.

CLEARANCE OF UNFIT AND OTHER HOUSES; ENGLAND AND WALES

	Second quarter, 1960	First quarter, 1960	Total since April 1, 1945
Number of Houses:			
In clearance areas submitted ...	9,494	9,511	‡
In clearance orders confirmed ...	1,747	2,897	49,662
In compulsory Purchase orders confirmed ...	8,069	8,234	140,389
Demolished or closed ...	‡	14,514	335,632§
Number of Persons:			
In clearance areas submitted ...	25,791	28,516	‡
In clearance orders confirmed ...	4,383	8,451	136,010
In compulsory purchase orders confirmed ...	23,140	23,462	434,406
Moved from houses demolished or closed ...	‡	39,894	1,017,688§

* Cmd. 119. Housing Return for England and Wales, HMSO, price 9d.
* Cmd. 1112. Housing Return for Scotland, HMSO, price 1/3.
‡ Not available.
§ To March, 1960.

Obituary

Felix J. Lander, FRIBA

WE REGRET to announce the death, on August 11, of Mr. Felix J. Lander, FRIBA, of 10, Harpenden-road, St. Albans, an architect who designed several of the new churches built in the St. Albans diocese since the war. He was 62.

Mr. Lander was a partner with his son, Mr. Sean Lander, ARIBA, in the firm of Welch and Lander, chartered architects, of London, W1; the firm received the RIBA's London Architecture Bronze Medal in 1933 for the design of St. Saviour's Church, Eltham, Kent, the partners at that time being the late Herbert A. Welch, Mr. N. F. Cachemaille-Day and Mr. F. J. Lander.

Recently, Mr. Lander was engaged on work on St. Stephen's Church, St. Albans, and he had been responsible for restoration work on the Abbey, St. Peter's and St. Michael's Churches in the area. Last year he did the architectural work on the West Herts Crematorium in conjunction with St. Albans City Council.

Lucy Grace Waterhouse

MRS. LUCY GRACE WATERHOUSE, widow of Paul Waterhouse, PPRIBA, and daughter of Sir Reginald Palgrave, KCB, died peacefully on August 10 at Bryantspuddle, a few weeks before her 99th birthday.

G. A. Taylor, LRIBA

THE DEATH occurred on August 7 of Mr. George Austen Taylor, LRIBA, FRICS, of Plymouth, Devon. He was 74.

Golf

MoW Beat LMBA at Weybridge

IN THE MATCH between the Ministry of Works and the London Master Builders Association Golfing Societies, which was held at St. George's Hill, Weybridge, on July 26, the Ministry team beat the builders by nine matches to seven. Following are detailed results:

MORNING

Ministry of Works	*Result*	*Builders*	*Result*
A. J. Filer (24) ...	0	P. H. Bates (12)	1
A. L. Barclay (14)	1	E. J. Cook* (16)	0
K. J. Jarvis (5) ...		P. A. Adams (6)	
S. G. Foster (7)	1	H. Cowan (8) ...	0
A. R. Barrett (5)		T. E. Yeomans (10)	
I. Flower (14) ...	1	J. H. Catt (18) ...	0
J. C. Belsey (11)		A. G. Miles (17)	
E. L. Hutchinson (12)	1	K. A. Rose (18)	0
J. F. Goldsmith (12)		W. B. Barrett (14)	
G. R. Fellowes (10)	1	W. L. Makin (21)	0
P. H. Ogle-Skan* (15)		F. A. Wallis (20)	
R. C. Miller (15)	1	G. A. Hill (13) ...	0
G. W. Younger (16)	0	Barry High (20)	1
J. F. Turner (18)		K. R. Atkinson (16)	
C. W. Bungey (16)	1	L. A. Murray (15)	0
R. M. Harvey (11)		C. A. Diebel (7)	
	6		2

AFTERNOON

A. J. Filer ...	0	P. H. Bates ...	1
A. L. Barclay ...		E. J. Cook ...	
K. J. Jarvis ...	1	P. A. Adams ...	0
S. G. Foster ...		H. Cowan ...	
A. R. Barrett ...	0	T. E. Yeomans...	1
I. Flower... ...		J. H. Catt ...	
J. C. Belsey ...	0	A. G. Miles ...	1
E. L. Hutchinson		K. A. Rose ...	
J. F. Goldsmith	0	W. B. Barrett ...	1
G. R. Fellowes...		W. L. Makin ...	
P. H. Ogle-Skan	0	F. A. Wallis ...	1
R. C. Miller ...		G. A. Hill ...	
G. W. Younger	1	Barry High ...	0
J. F. Turner ...		K. R. Atkinson	
C. W. Bungey ...	1	L. A. Murray ...	0
R. M. Harvey ...		C. A. Diebel ...	
	3		5
TOTAL	9	TOTAL	7

* Captain.

View from the Typist's Desk

The Mystery of Construction Seen from a Builder's Office

BY MARGARET FENGE

UNTIL I came to work in a builder's office, I thought a building consisted of a roof, four walls, windows, doors and a couple of gates. I was vaguely aware that something went on inside like making ceilings and dividing up space for rooms, but it all seemed a fairly simple matter and any delays or extra expense were solely due to the proverbial lackadaisical temperament of the average British workman.

I have learnt a lot since then, and even after three and a half years of typing my way through specifications and bills of quantities, I am still mystified to know how the thing becomes erected at all. It would help, of course, if the jargon were a little clearer—even the gates which I thought merely meant erecting and fixing a couple of posts, turns out to be a very complicated affair of 'steel and fabricated frames and angles with glazed stones filled with galvanised mesh welded into frames,' etc., etc.

But it is when we get to the really big stuff like schools and churches and hospitals that I'm lost in a labyrinth of tarred limestone and stone piers, sliding door gear and salt glazed stoneware, and quite astonished to know that impressive sounding items like 'beaded front edges neatly put together, jointed with red lead mastic, screwed up with all necessary wrought iron spar hangers and with riveted copper tabs for clipping over,' etc., etc., turns out to be a simple ordinary common-or-garden rainwater gutter!

'A Minor Miracle'

I must say, however, that I have learnt to have immense respect for the subcontractors who sort all this out and are able to make sense of the weirdest instructions which are just about as clear as a doctor's prescription. That all these sub-trades can work together in spite of arguments, setbacks, often appalling weather conditions, natterings from higher-ups, architects who constantly change their minds and builders who hate to change anything, is still to me a minor miracle. From the moment the excavator gets busy to the day when the official invitation arrives for the opening date, I am filled with awe and admiration for the way in which the thing, like Topsy, just grows and grows. . . .

My boss is an understanding kind of man, quiet, thorough, and like everyone else in this odd trade wrapped up to the ears in stanchions and sanitary fittings and well lapped joints, and although I feel he has few complaints about the way in which I type his letters, I also feel he has a kind of shuddering pity for my lack of technical knowledge and occasional 'clangers.' 'Friction bottoms' for instance and 'slotted stays,' and once I even decorated somebody's roof with 'red panties.'

Heavy Tea Consumption

As a typist I am naturally right outside all the goings on that herald the start of a new contract. Tea consumption is rather heavier than usual, and nobody seems in a hurry to go home, but sanity returns within a day or two, by which time another contract is under way and the surveyor, coat off, tie loose, shuts himself up in his office in a thick pall of tobacco smoke with hundreds of sheets of paper on his desk, happily working out prices and problems that he knows, and everyone else knows, will be altered a dozen times. In fact, before anything begins at all, *everything* will be changed by somebody, and from occasional bursts of laughter from the boss's office or, more significant—grim silence (the gold-edged cups reserved for VIPs and ushered reverently in on a *tray* are a sure indication!) —we know that 'somebody' is already there doing just that!

Still it is a pleasant enough job and the bustle and activity can at times be quite exhilarating. It is also full of surprises. I mean where else could you work where a smart, well-dressed man gives you a friendly pat on the shoulder and then says 'Excuse me a minute while I wash my hands. I've just been down a sewer.'

My nine-year-old son, who refuses to be impressed by my confidences, even though he once received a pat on the head from the Minister of Town & Country Planning, sums it up rather neatly. Maybe I chose the wrong moment to tell him about the new technical school because he looked up from a well-thumbed history book where he was trying to puzzle out just who Clive of India was and said scornfully, 'Ugh! I bet they didn't have all that carry-on with the Taj Mahal.'

I wonder?

Fire Properties of Plastics

New Technical Information Sheet

THERE are at present more than 2,000 proprietary plastics and the number is growing daily. 'Plastics,' a new Technical Information Sheet (No. 3014) published by the Fire Protection Association, makes a chemical classification of plastics and deals with the fire properties of the various groups.

Thermosetting plastics, which require heat and, generally, pressure to mould them into shape, are as a rule difficult to ignite, but the fire properties of thermoplastic materials, which can be softened and hardened indefinitely, differ widely and relate to a number of factors apart from the chemical composition of the plastics. These factors are mainly: the form of the plastic—i.e. whether in bulk mouldings, sheet, film, fibre, liquid or powder; the degree of free access to the air; and the support given to the combustion of the burning material by others burning nearby.

Since all plastics are organic, their dusts are nearly all capable of forming explosive mixtures with air. The lower explosive limits of these dusts and their ignition temperatures, where known, are given in the Information Sheet together with the ignition properties of the plastics and descriptive accounts of their appearances and odours when burning.

Copies of the Technical Information Sheet may be obtained free of charge on application to the Director, the Fire Protection Association, 31-45, Gresham-street, London, EC2.

Noise in Factories

Factory Building Studies No. 6

THE TREND towards more powerful machines is making the problem of noise in factories increasingly serious. In some factories measures are being taken to reduce existing noise levels. However, there is much that can be done at the initial stages of design to reduce the noise problem. A survey of the main causes of noise in factories and available methods of reducing it is now published as the sixth in the DSIR series Factory Building Studies (HMSO, price 3s. 6d.).

It is emphasised that the noise factor may be considered at the earliest stages in planning a factory. Choice of the manufacturing method, which largely determines the noise level and its effect on the occupants of the factory and residents of the area, is the responsibility of management. Noise at source could be reduced by machine manufacturers in designing their machines. Where this is not possible, factory engineers could minimise its effect by taking precautions in installing machines. The building designer can reduce annoyance by siting noisy equipment away from other buildings, and by the use of enclosures and sound-absorbing roof linings.

This 26-page booklet is divided into two parts: the first explains how noise is generated in industrial operations and its effect on people near; the second discusses the various ways of reducing noise in factories and their effectiveness. The author is Mr. A. G. Aldersley-Williams, M Arch, ARIBA.

Personal Column

MR. L. A. LLOYD has been appointed Spares and Service Manager of the Contractors' Plant Dept. (Southern Area) of Thos. W. Ward Ltd., and will be based at Titan Works, Grays, Essex. As a result of this re-organisation, all enquiries for spare parts for Fowler Marshall tractors should be directed to that address. Tel.: Grays Thurrock 4806 and 4764.

MR. CHARLES DODD has been appointed Press Officer to the Cementation Group of Companies.

MISS JEAN R. ROBERTS has been appointed Advertising Manager of Semtex Ltd.

MR. J. S. WHITEHOUSE has joined Mr. T. H. Whitehouse in the formation of the company, J. & T. Whitehouse Ltd. This company represents on an exclusive agency basis James W. Ellis & Co. Ltd., manufacturers of structural steelwork of all types. Messrs. Whitehouse also have the exclusive agency for the En-Tout-Cas Joinery Co. Ltd., a company specialising in joinery, school furniture, etc.

Messrs. Rudders & Paynes Ltd. have appointed MR. A. R. ZAMBRA as general manager of their roofing, structural insulation and acoustics department.

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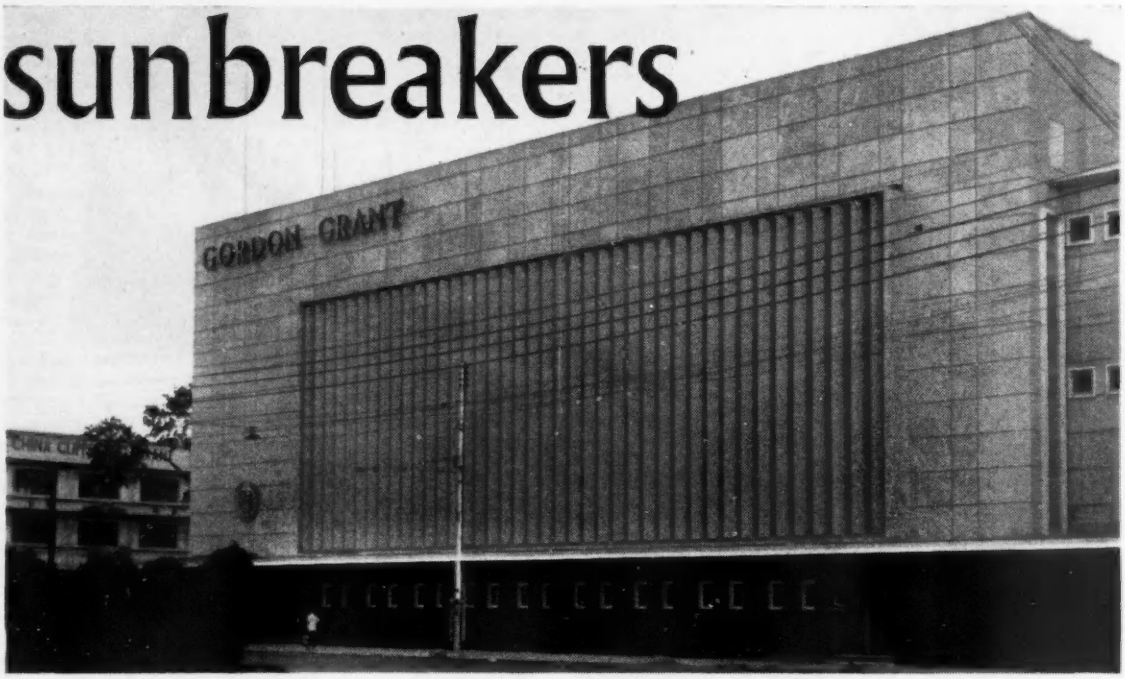

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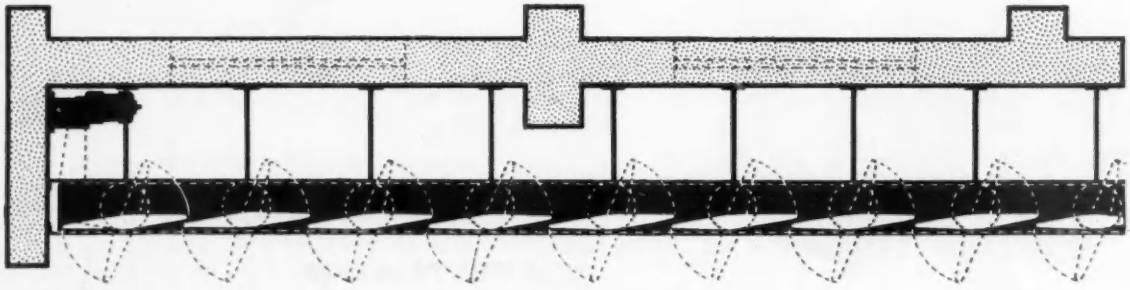

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Incorporated Clerks of Works

Final Examination Results

THE FINAL EXAMINATIONS of the Institute of Clerks of Works of Great Britain Incorporated were held on May 25, 26 and 28 last in London, Edinburgh, Manchester and Belfast (where there were no successful candidates). Following is a list of successful candidates:

PART II (FINAL)

LONDON

J. W. G. Andrew, A. V. Clark, C. W. Cochrane, *A. E. Cox, R. C. Gardner, D. A. Hart, H. E. Hazell, A. Howell, H. Humphrey, D. MacKen, E. W. Ridsdill, S. Roe, P. K. Warren-Jones, R. J. Wood.

EDINBURGH

J. D. Bustard, J. Timoney.

MANCHESTER

I. A. MacIntyre, J. Swift, A. R. Thomas.

The following passed in three groups in June, 1959 (or earlier), and this time completed the examination:

R. Annandale, G. C. W. Battersby, F. Bengston, E. G. Bruffell, G. Burn, L. Edwards, N. W. Gascoine, G. E. Jephson, C. Lowry, J. McAteer, A. R. Myers, A. E. Parker, E. P. Sims, C. K. Williams.

The following passed in two groups in June, 1959 (or earlier), and this time completed the examination:

P. J. Reece, S/Sgt. F. J. Garside.

The following passed in three groups out of four:

*G. Adams, *E. H. Gee, A. Jarvis, C. E. Larner, R. Nash, T. B. Penfold, D. E. Purdham, L. Richardson, S. Shrouder, D. H. Williamson.

The following passed in Materials, and completed the examination:

I. Buckingham.

The following passed in two groups out of four:

I. Bilsborough, A. Buchan, D. S. Chalmers, L. J. Charles, D. McCullough, J. A. Reeks, J. Willoughby.

The following passed in two groups in June, 1959 (or earlier), and this time passed in one more group:

R. W. Brooker, A. Skinner.

The following passed the written examination in June, 1959, and have now passed the Materials Test, thus completing the examination:

E. G. S. Bavin, A. W. Dryden, W.D. Massingham.

By arrangement, the War Office undertake the entire supervision of Servicemen stationed abroad, whereby they can complete the written part of the examination, leaving only Oral to be taken on their return home. No candidate passed in four groups. The following passed in two groups in June, 1959 (or earlier), and this time completed the examination:

W. G. Jukes, 219 DCRE, BFPO 29.

The following passed in two groups out of four:

B. H. Austin, CRE, Kahawa Cantonment, BFPO 10; E. Lambell, CRE, Kahawa Cantonment, BFPO 10.

The following passed in three groups in June, 1959 (or earlier), and this time completed the examination:

F. J. Bradley, PO Box 30075, Nairobi, Kenya.

Mr. H. E. Hazell has been awarded the P. J. Luxton Memorial Prize in recognition of his outstanding success in the 1960 Part II (Final) examination of the Institute.

Candidates whose names are marked * are required to take a further Materials examination.

Tipping Vehicles

Warning Against Their Indiscriminate Use

THE initial step for builders and civil engineers requiring large numbers of tipping vehicles in a particular area ought to be contact with the appropriate Licensing Authority and liaison with the Road Haulage Association regarding requirements, ascertaining numbers of licensed vehicles available, and ensuring prompt issue of short-term licences available, writes a correspondent.

This advice has become necessary as a result of the increasing numbers of dubious transport activities which have recently taken place at and near the sites of a number of large building and road-making contracts. Licensing authorities have been made aware of discreditable activities and actions have been and will in future be taken against those responsible. In this connection, although the operators of vehicles are primarily the guilty parties, some of the big contractors and civil engineers must bear a share of the blame for offences such as gross overloading, working of excessive hours, use of un-licensed vehicles or in contravention of licences.

Compliance with Regulations

Mr. S. W. Nelson, Western Licensing Authority, recently issued a warning at Bristol that hirers of transport have a responsibility to ensure that regulations are complied with, and future offenders could find themselves prosecuted for 'aiding and abetting.' It would be no excuse to adopt the attitude that it is the hauliers' responsibility, and therefore breaches of the law could be ignored so long as work progresses.

G. W.

House Purchase

A Building Society's Revealing Survey

AN 'OCCASIONAL BULLETIN' issued by the Co-operative Permanent Building Society reveals that since 1951 there has been a 50 per cent increase in the number of families living in owner-occupied dwellings. This is an approximately estimated increase of 2m. over the last ten years.

Summarising the findings of their survey the Building Society state that most people are under 34 when they purchase a house; about two-fifths are between the ages of 25 and 34 and two-thirds between the ages of 25 and 44. Most people embark on house purchase with an income of under £15 per week, and they buy a house costing under £1,800.

House purchase is spread over the whole range of occupational groups but salary earners purchase more new houses than wage earners. A large number of house-purchase deposits are less than £200; over one-half are below £300. The average loan is £1,440.

The survey from which these figures are taken is based on an examination of the records of all persons who purchased dwellings for their own occupation through the Co-operative Permanent Building Society's branches between September 30, 1959 and March 31, 1960. The cases included in it represented approximately 5 per cent of house purchase loans granted by the whole of the building society movement during the six-month period. Mr. Herbert Ashworth, the Society's general manager, states that the Government House Purchase Scheme for pre-1919 houses is producing good results and that the increase in the mortgage interest rate to 6 per cent has so far not substantially reduced demands.

Building Near Gatwick Airport

Minister Gives Permission for Houses and Schools

MR. HENRY BROOKE, Minister of Housing and Local Government, has given permission to build schools and houses on 60 acres at Court Lodge Farm, Horley, Surrey, following a three-day public inquiry.

He says: 'As regards the housing application, the inspector says there can be no doubt about the dislike felt by local residents and by the parish council both to the provision of houses for the employees of Gatwick Airport and to the building of any houses on Court Lodge Farm.

'He considers that the views expressed on behalf of the objectors are deserving of much sympathy, but in his opinion the facts must be faced that Horley is no longer a village community, that the establishment of a great airport in such close proximity must entail further expansion, and that Court Lodge Farm is the most suitable area for this purpose.'

The Minister recommends that the housing development should be at a lower density than the 11½ houses to the acre indicated.

Official Notification

Work in Compressed Air

THE work in Compressed Air (Amendment) Regulations, 1960*, which were made on July 26 by Mr. Edward Heath when Minister of Labour, came into operation on August 14, 1960.

These regulations extend the scope of the Work in Compressed Air Special Regulations, 1958, so as to make those regulations apply not only to work in compressed air carried out in works of engineering construction, but also to work in compressed air carried out in any factory and in any other premises or place to which the Factories Act, 1937, applies.

* SI 1960 No. 1307, HMSO, price 3d.

Books Received

*** Books noted in these columns may be obtained on application to the Book Dept., 'The Builder,' 4 Catherine-street, Aldwych, WC2. Cash (to include postage on books to the value of 10s., 9d.; over 10s., 1s. 6d.) should accompany the order.*

GARDEN HEDGES. By Noël J. Prockter. (London: W. H. & L. Collingridge Ltd.) Price 25s.

BUCKINGHAMSHIRE. By Nikolaus Pevsner. (Middx.: Penguin Books). Price 10s. 6d.

Higher Technical Scholarship

Sponsored by London Building Centre

THE COUNCIL of The Building Centre, London, in furtherance of its policy and objective in the field of technical education and training for the building industry, has in conjunction with the National Joint Council for the Building Industry agreed to sponsor a scholarship for a Higher National Diploma Course, or a Diploma in Technology Course in Building, for building craft apprentices. This scholarship will be offered annually for competition.

The scholarship will be awarded by the National Joint Apprenticeship Board through its existing scholarships scheme and will be subject to the same terms and conditions as the Board's other awards.

The Building Centre has further agreed to make its scholarship available this year to the candidates who sat for the NJAB Scholarships examinations in April. Details of this first award are published below.

Full information concerning the 1961 Scholarships and examinations will be published in due course by the National Joint Council.

NJAB Scholarship Awards, 1960

THE National Joint Apprenticeship Board for the Building Industry has confirmed the award of its 1960 Scholarships for Higher National Diploma Courses for Building to the following registered apprentices:—

NJAB SCHOLARSHIPS

WILLIAM P. DROST (carpenter) (trained by Messrs. E. Turner & Sons, Ltd., Cardiff), and studying at Llandaff Technical College, Cardiff.

DAVID G. MAY (carpenter and joiner) (Mr. J. R. Cory, East Wittering, Sussex), Municipal College of Technology and Commerce, Boscombe, Bournemouth.

THE BUILDING CENTRE SCHOLARSHIP

A scholarship for a Higher National Diploma Course, additional to those previously announced, has been sponsored by The Building Centre, of London, and this has been awarded to JOHN M. ASHWORTH (carpenter and joiner) (Messrs. Wm. Thorpe & Son, Ltd., Manchester), Manchester College of Building.

PLASTERERS' SCHOLARSHIP

The scholarship for plasterer apprentices, sponsored by The British Plaster Board (Holdings) Ltd., in conjunction with the National Federation of Plastering Contractors, has been awarded to PETER ROBINSON (apprentice plasterer) (Messrs. William Cowlin & Son, Ltd., Bristol), College of Technology, Ashley Down, Bristol.

These scholarships, each of which is valued at £850 (approx.), are for a three-year full-time course, or for a four-year 'sandwich' course (at the holder's choice) in the case of the NJAB Scholarships and the Building Centre Scholarship, and for a four-year 'sandwich' course in the case of the Plasterers' Scholarship.

CUC Annual Report

Improving Services to the Public

EFFORTS were made during 1959 towards improving the effectiveness of the Council's three technical service schemes, for coal merchants, appliance distributors and appliance fixers, states the annual report of the Coal Utilisation Council.

There were 742 members of the approved appliance distributors' panel by the year's end and 297 approved appliance fixers, firms representing 859 qualified employees. The fixers' scheme aims at maximum solid fuel efficiency through correct installation of appliances. Local authorities are taking keen interest. The scheme has been supported by building trade bodies and technical colleges, where fixers' courses are held.

Training Courses

During the year 120 training courses were held at the Vauxhall Centre in London with a total of 2,076 students, many attending small pipe central heating courses. The Glasgow Centre held 10 courses, attended by 114 students.

The report says that CUC policy on smoke control remains unchanged. Neither promoting nor opposing control areas, it co-operates with authorities where such areas are to be set up and encourages the use of smokeless solid fuels in those areas. During 1959 the CUC took part in several clean air exhibitions.

A market research survey showed that 'solid fuels held a strong position in British homes.'

The trustees of the CUC have appointed Sir Campbell Hardy, KCB, as Director of the Council, as from May 2, in succession to Mr. J. S. Williams, OBE.

Loans to Local Authorities

Decrease of Over £26m. in the Second Quarter, 1960

THERE WAS a decrease of £26,427,700 in the amount of loans sanctioned by the Minister of Housing and Local Government to local authorities in England and Wales during the quarter ended June 30.

	£	£
Housing (land, dwellings, roads, sewers, etc.) ...	50,148,747	
Advances and grants under Housing and SDA Acts	14,640,776	
		64,789,523
Town and country planning	2,225,896	
		2,225,896
Sewerage and sewage disposal	9,529,772	
Water supplies	4,814,306	
		14,344,078
Burial grounds and cemeteries	97,081	
Coast protection... ...	79,331	
Crematoria...	250,897	
General depots	285,086	
General markets... ...	44,601	
Land for the benefit, etc., of the district	1,400,347	
Physical training and recreation	432,341	
Private street works ...	601,816	
Privy conversion... ...	14,089	
Public baths and washhouses	590,708	
Public conveniences ...	176,124	
Public libraries and museums	473,131	
Public walks and pleasure grounds	746,247	
Refuse collection and disposal	276,279	
Street cleansing	22,042	
Town halls and offices...	2,622,097	
Miscellaneous	935,441	
		9,047,658
		90,407,155

News in Brief

Evening Classes in Middlesex

A GREAT VARIETY of subjects is listed in the 1960-61 guide to evening-class facilities in Middlesex issued by the County Council's Education Committee. There are nearly sixty evening institutes in the county. Copies of the publication may be obtained from the Education Offices at 10 Gt. George-street, Westminster, London, SW1.

Retirement of Dr. J. C. Hudson

DR. J. C. HUDSON, who has been in charge of the British Iron and Steel Research Association's research on corrosion since its formation in 1945, will be retiring at the end of August. He will, however, continue to have very close ties with the Association, since he has agreed to act as consultant to both the Corrosion Advice Bureau and the Chemistry Department.

Finance and Industry

THE AUGUST issue of the 'Midland Bank Review' surveys the progress of the 15 new towns which have been established under the New Towns Act, 1946, placing particular emphasis on industrial and commercial enterprise, amenities, and finance. A survey of the recent economic progress in Northern Ireland is also included. A quarterly survey summarises the developments in finance, industry and trade, at home and overseas, during the second quarter of this year.

Venice Film Festival Award

THE UNITED STEEL COMPANIES, LTD., have gained the premier award at the Venice Film Festival with their film 'Stone into Steel' out of a total international entry of 240 films. The film features the works of Appleby-Frodingham Steel Company. The Golden Mercury trophy was presented to the producer, Mr. A. Frank Bundy of Wallace Productions by the president of the Venice Chamber of Commerce on July 30. Copies in 16 mm and 35 mm may be obtained on free loan on application to the public relations department of United Steel.

RSA Industrial Art Bursaries

THE ROYAL SOCIETY OF ARTS has issued the particulars of its 1960 Industrial Art Bursaries Competition. Prizes, amounting to £5,375, will take the form of travelling bursaries, in most cases of £150 each. The competition is open to students attending an art, architectural or technical college, and to others who intend to take up industrial design as a career. The closing date for entries is October 10. Full information may be obtained from the Bursaries Officer, RSA, John Adam-street, Adelphi, London, WC2.

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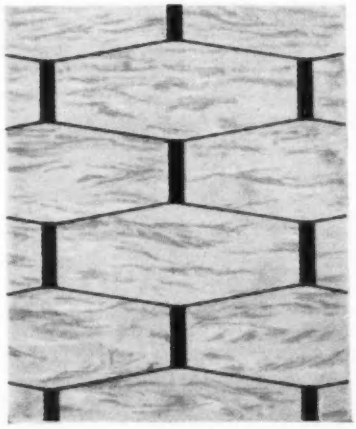

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Electrical Installations and Housing Standards

Evidence to Housing Ministry's Advisory Committee

IN SUBMITTING its evidence to the Advisory Committee of the Ministry of Housing and Local Government on Housing Standards, the Electrical Contractors' Association concentrated particularly on the necessity for an adequate installation, says a statement issued by the Association.

The recommendation in the Ministry of Health's Housing Manual 1949 which suggests one or at the most two sockets per room was regarded by the Association as 'utterly inadequate.' The statement of evidence continues:

A number of appliances today are usually 'permanently' connected, even though they are portable appliances. For instance, an electric clock, radio set, television set, electric fire and portable lamp will each require a socket-outlet and will usually be used in one position and fed from one socket-outlet. Allowing for the fact that sockets will also be required for the use of casual appliances, such as vacuum cleaners, coffee percolators, record players and so on, a dozen socket-outlets in the average living room is by no means too many. Indeed, when it is considered that the lighting trend today is towards portable reading lamps and standard lamps, rather than a single centre pendant, it will be seen that even a dozen outlets is likely to be insufficient.

It must also be accepted that, in any room, furniture may mask certain outlets and some outlets must be 'wasted.'

The following table of recommendations for socket-outlets was made:

Room	*Sockets*	*Appliances*	
		'Permanently' connected	*'Casually' connected*
Hall and Landing	1-3	Standard and Table Lamps Convector heater	Floor polisher Vacuum cleaner
Living Room	6-10	Electric clock Radio set Television Electric heaters Portable lamps	Vacuum cleaner Coffee percolator Record player Fan Floor polisher
Double Bedroom	5-8	Heater Electric blanket(s) Teamaker or kettle Radio Clock Bedside lamp(s)	Vacuum cleaner Shaver Hair dryer
Single Bedroom	3-5	Heater Electric blanket Radio Clock Bedside lamp	Vacuum cleaner Shaver or hair dryer
Kitchen Utility Room	6-8	Cooker* Refrigerator Home freezer Water heater* Kettle Washing machine Convector Radio Clock	Iron Toaster Mixer Clothes dryer Fan Floor polisher Percolator Plate warmer Vacuum cleaner
Garage	1-3	Heater Battery charger	Electric drill Soldering iron Inspection lamp Lawnmower, and similar appliances, preferably low voltage

* Usually on separate circuits.

Even so, these figures already fall below the optima required. The ECA has emphasised that an adequate provision for socket-outlets is not a luxury. It is essential to enable the fullest benefits to be gained from labour saving appliances. Moreover, a multiplicity of outlets will avoid accidents through the use of unnecessarily long cords.

An adequate number of outlets will also prevent the consumer from tampering with his installation in an endeavour to make it more convenient. Every domestic installation should be so designed that it does not tempt the consumer to tamper with his wiring. Amateur extensions are very easy from the point of view of the handyman. Temporary 'extensions' which run through kitchen and bathroom windows into the garden frequently become permanent in spite of their unprotected and shoddy nature. If an adequate installation is provided in the first place, there is so much less temptation to the householder to try to improve on it.

The Clean Air Act

When answering a question regarding the trend of home heating, the ECA has emphasised that the introduction of the Clean Air Act and the designation of smokeless zones, automatically causes people to turn towards electricity. The housewife appreciates the lack of dust and fumes and the added life of decorations, so that electric heating will become more and more the accepted pattern of home heating as time goes on.

In addition, the new methods of heating, such as floor warming, have proved themselves acceptable. Many thousands of young people building their own homes are today finding this modern method of domestic heating clean, automatic and trouble free.

The Low Cost Dwelling

Answering the question 'How far do you consider that heating in the low cost dwelling can reasonably be improved?' the Association has pointed out that in the low cost dwelling there is likely to be a lower income family, so that the occupants are not likely to be able to afford whole house heating whatever the fuel. The convenience of electric heating at the touch of a switch makes it very desirable. The adequate provision of socket-outlets for the electric heaters would enable the lower income groups to enjoy the benefits of electric heating without the necessity of a large capital expenditure on built-in heating systems which could be relatively expensive to run.

In answer to a question about the possible demand for whole house heating systems in the future, the ECA has reminded the Committee that the demand for centrally heated houses is spreading rapidly, and that the additional capital cost in respect of electric whole-house heating is very small, compared with that of one or other of the systems using a form of combustible fuel. It is considered that the demand for whole house heating systems and particularly electrical heating systems will develop very rapidly.

A suggestion that laundry facilities should be provided in the bathroom has been strongly condemned by the ECA. Most home laundry appliances are portable and it would be difficult to provide facilities for wash boilers, washing machines, spin dryers, drying cabinets and so forth in the bathroom without making it also possible for the consumer to use a portable electric heater or other portable appliance, with all the consequent dangers to the occupant of the bath.

Lighting

The Association has stressed the necessity for adequate lighting, not only as a means of illumination but also as part of the interior decoration of the modern home. The use of a multiplicity of lighting points enables the occupier of a house to enjoy a far higher standard of lighting, with a consequent improvement in the overall effect of his decorations.

With a single ceiling lighting point, the only way in which the user can increase the amount of light available to him is to increase the size of the lamp. There is a limit to this procedure: in any case, the glare from a single high wattage tungsten bulb could become intolerable. The equivalent load spread over half a dozen 60 watt lamps (brackets and lamp standards) produces a very much more

pleasant and much more healthy form of illumination.

Safety Recommendations

The ECA listed the following points in answer to a request for suggestions for recommendations for safety:

1. *All* socket-outlets should be three-pin, shuttered and preferably switched.
2. *All* wiring systems concealed.
3. There should be no provision for portable appliances to be used in bathrooms (with the exception of a shaver socket-outlet to BS 3052).
4. Lighting points in hall, landings and stairways and dark places should be controlled from two positions.
5. Electrical garden tools should be supplied from low voltage transformer.
6. The entire installation should be carried out in accordance with the IEE Regulations by a competent electrical contractor.

Cost Control & Management Appreciation

Record Attendance for Joint RIBA/RICS Scottish Conference

From a Special Representative

THE SPEAKERS at the RIBA/RICS Joint Liaison Committee Cost Control and Management Appreciation Conference which was held at St. Andrews recently, included many of those who have addressed previous conferences in this series, and were as follows: Professor J. V. Connolly, Mr. Alick Low, Mr. J. Nisbet, Mr. C. E. D. Wooster, Mr. A. C. Leyton, Mr. W. S. Gauldie, Mr. H. J. Cruickshank and Mr. R. B. Hellard. In addition, Mr. P. W. Grafton and Mr. R. R. Alexander led the evening discussion sessions on Cost Planning and Communications respectively. The conference was introduced by the President of the RIAS, Mr. James A. H. Mottram, and the chair was taken by the Joint Liaison Committee Chairman, Mr. R. Baden Hellard. The conference was summed up by Mr. Alick Low.

The conference was attended by a predominantly Scottish audience of architects and quantity surveyors with two or three builder members. Welcoming members, THE PRESIDENT of the RIAS said that it was right and proper that at least one of the series of conferences should be held in Scotland, and he was delighted that the attendance figure was better than on any previous occasion, even if the number was swollen by a few English members who had been unable to obtain a place at the previous sessions!

He was a little disappointed that there were few representatives from the Glasgow area, but he felt certain that this would be their loss, for the subject matter was one of vital concern to all members of the profession, and the busier they were the more value would it be to them.

Separate Trades Contract

The conference was different from all the previous conferences in that, being held in Scotland, the place of the 'separate trades contract' affected much of the discussion after nearly all of the papers. Scottish members of the conference, both architect and quantity surveyor, were divided on the efficacy and value of the separate trades system, but it was agreed that this only made the architect's management problem a little more complex, and did not invalidate the main aim of the conference, which was to put cost planning in a proper management framework within the whole professional activity in building.

In the summing up it was stressed that the course had been an appreciation course designed to 'introduce those unfamiliar with management techniques to the scope and value of their application without equipping them with a detailed knowledge necessary to apply the technique' (from 'Communications in the Building Industry'—November, 1958, obtainable from the RIBA).

The conference confirmed the need for a thorough cost analysis of projects which would enable architects and their quantity surveyors to carry out the practice of 'Design Budgetary Control' (Cost Planning) on future buildings using information gained from these analyses. It appeared that the practice of separate trades contracting in Scotland would make this thorough analysis and design budget planning less difficult than it had been in England. In many respects a similar practice in Scotland had operated due to this separate trades contracting.

Design Budgetary Control was defined as 'the establishment of sectional budgets for the various parts of the building so that the responsibility of the designers was related to the overall requirements of the design policy, so that by the continuous comparison of actual with budgeted results the objects of the design policy in relation to cost was attained by action on the part of the individual designers, or information was provided as a basis for the revision of that policy with the client's approval.'

Attention was drawn to the paper by G. J. J. Hunt, included in the conference folder which deals with the management principles of cost planning, and relates the various methods which were discussed during the conference.

The conference was unanimous that further management training was essential for all practising architects, and that courses such as those that had been run so far should become a permanent feature of the Institute's activities.

Some members felt that it was particularly necessary at the present time so that the omissions and faults in the current educational syllabus at the schools of architecture could be overcome, for the definition of management as 'the group or individual that directs at any level the use of men and materials to a definite end' was also accepted as properly being within the architect's compass in addition to his role as a designer.

Thus it was accepted that consideration of broader subjects such as economics and communication problems should not be neglected by architects, as these things could also have a profound effect on his design, apart from improving the efficiency of execution.

There was a general feeling that the non-professional side of the industry, even in the more remote areas of the country such as parts of Scotland, was beginning to become more efficient, and certainly the larger national contractors were developing highly sensitive management techniques. It was vital, therefore, that the architect and quantity surveyor should keep abreast with similar techniques as it affected their own performance if they were to keep up with—let alone lead—the rest of the building team.

It was accepted by a majority that the techniques discussed could be used now, and the need would steadily increase in even the remote parts of Scotland. It was therefore hoped that further courses and discussions on these subjects would be held in Scotland.

In his concluding remarks to the conference THE CHAIRMAN of the Joint Liaison Committee commented that two years ago the idea that Management Training would be accepted by the professions had been decried. The opinion of this conference had clearly stated that the reverse was the case, and it had been most gratifying to the organisers that this had been the undoubted conclusion of all the previous conferences as well.

It now remained for all those who had attended the conferences to see that the work started was continued, for it was only by their actions individually and collectively that the improvements could be brought about.

Absence of Consultants

The conference was disappointed that there were no consultants present so that they could contribute to this most important aspect of the building profession's management problem. This was in line with all previous conferences, for only two consultants had been present throughout the whole series. This was particularly unfortunate as the conference accepted that proper management on the professional side of the industry necessarily involved the whole team, and whilst there were times when the engineer might lead the team on works of a predominantly civil engineering nature, in building the architect must lead and be in a position effectively to manage the work of others in the team as well as in his own office. This would include the quantity surveyor and structural and services consultants.

It was felt that further conferences on this subject must always be ineffective until the architect had got to grips with the problem of the consultants, and therefore their presence was vital at future discussions.

Brickworks to Building Site

A New Rail Transport Approach

From a Correspondent

A BUILDING SITE without bricks is to a builder what a garage without petrol is to a motorist. The motorist can perhaps hope for a pipe-line, but the builder's transport problem—how to get bricks cheaply, quickly and in the right quantity from brickworks to building site—is less simple.

The problem has always exercised the building trade, but today, with unprecedented demands on public and private transport, and with massive building programmes—ranging from housing estates to office blocks, from factories to schools—in being throughout the country, it is more than ever a serious factor in the cost and speed of building operations.

A very great deal of brick traffic has hitherto been carried by road, much of it, indeed, in vehicle fleets which have been built up by the brickmakers themselves. There has latterly been increasing evidence, however, that the railways, which on the face of it have unrivalled facilities for the mass movement of materials—they can move a thousand tons in a train manned by only two or three men, for instance—are offering a challenge for the traffic which may well be economically decisive.

At Bedford, for example, where readily accessible deposits of Oxford clay have enabled the London Brick Co. Ltd. to make their works at Stewartby the largest and one of the most highly mechanised brick factories in the world, the rail movement of bricks is on the increase. Over the last two years, in fact, the volume of rail-carried bricks from Bedford, where the Marston Valley Brick Co., and Eastwoods (Fletton) Ltd., also have established works, has increased by some 100,000 tons.

Benefits of Speed and Cost

This trend towards rail transport will be watched closely throughout the whole building industry, for it reflects a changed approach on the part of the railways which builders will want to know is permanent. There is nothing new in the advantages offered by railway trunk haul as such. Indeed, trade and industry generally have always been quick to realise the speed and cost benefits of rail haul between major points on the trunk system, and so far as the building trade is concerned the fact that one train can carry enough bricks to construct nearly twenty average-size houses has always been a telling one.

Goods and materials for movement do not emanate tidily from points on the main trunk route, nor are they always helpfully consigned to points on the trunk routes. Certainly the building trade, which by its very nature is concerned with the development of new areas often quite remote from established communication lines, cannot keep its traffic movements so conveniently encompassed, and it is for this reason that, lacking the present signs of railway enterprise, the brick companies built up the fleets of lorries which are seen all over the country.

A prototype British Railways road vehicle which incorporates its own hydraulic crane system for lifting and placing the brick containers

The railways will be the first to admit an inability, at that time, to carry 'off-beat' traffic quickly and cheaply. But today, with a modernisation of methods and equipment under way, and with a commercial freedom which had been long withheld on the grounds of monopoly, the railway position is vastly different. It is this fundamental change which is bringing bricks to their wagons in greater quantity.

So far as charges are concerned, the significance of the change is that the railways are now not only free to act with the same sort of flexibility that any other commercial enterprise enjoys, including road haulage, but that they are doing so successfully. They are able, for instance, to make on-the-spot quotations to the brick firms which can include traffic from any other works of the same firm no matter where they are sited. It is this kind of overall rate policy which has impressed the brickmakers.

Modernised Equipment

In the end, however, it is the actual service given which attracts the traffic, and here the railways are increasingly able to use modernised equipment and techniques. There are railway vehicles specially built or adapted for all kinds of traffic nowadays, and for bricks the railway technicians are now perfecting a road delivery vehicle which incorporates its own hydraulic crane system for lifting two 4½-ton containers on to itself (or in reverse) in a matter of minutes.

The kind of container envisaged is an open-ended one in which the bricks would be held in place by clamps. At the delivery site the container would be unloaded with its open end to the ground, the clamps released and the container lifted back on to the vehicle, leaving a perfectly stacked pile of bricks on the site.

Impressive Economies

From that kind of service, given from appropriate points on the trunk haul routes direct to building sites or to strategically placed concentration depots for the building trade generally, the railways are expecting some impressive savings in time and money. Not only the railways, in fact, for the London Brick Co. have made no secret of their satisfaction with the new look. 'There are a lot of problems involved in brick transport, but the railways are certainly tackling them realistically,' they say. 'We shall co-operate with them to our mutual advantage.'

Direct road haulage from the brickworks is a powerful competitor, but if the railways succeed in their present aim to add thoroughly modern terminal arrangements to the medium and long distance rail trunk hauls, which by themselves have always been difficult to beat, then it seems likely that the railways will re-establish themselves in the brick transport business in a big way.

Town and Country Planning Association

Land Shortage and Planning

A STATEMENT on planning policy was issued by the executive committee of the Town and Country Planning Association in March and was followed by a deputation to the Minister of Housing and Local Government. The recent announcement by the Minister in Parliament has prompted Sir Frederic Osborn, chairman of the Association's executive committee, to issue a note as a further contribution to the discussion. The following draft sets out in general terms the trend of the Association's policy:

The Association welcomes the Minister's assurance that green belts will be firmly safeguarded. It agrees that this means that planning authorities must allocate more land for development in areas outside the green belts, since the growing volume of dispersal (organised or spontaneous) cannot be denied.

There is a danger, however, that the need will be seen merely as that of providing land for homes for people to 'commute' across the green belts to scattered areas beyond them. This would just increase the time and cost of daily travel and worsen traffic congestion in the cities.

Raising the density of redevelopment within cities would be an even worse expedient. It would increase public costs (for housing, transport improvements, etc.), while seriously depreciating rehousing standards.

It is thus essential that the desirable outward movement of population must be accompanied by a commensurate reduction of employment in the over-concentrated centres. It is regretted that the Minister's statement gave no indication that factories and offices will be induced to move out and new ones steered to places where more and more people will live.

The Association welcomes the Minister's call for more rapid redevelopment of the older city areas, which it has always urged as necessary for comfort, convenience and efficiency. Britain's townspeople should live, work, play, learn and travel in conditions and surroundings worthy of the twentieth century. High densities and meagre open spaces would defeat this aim, while they could not in any case significantly reduce the volume of inevitable dispersal.

Estimating the Requirements

What is urgent is that, coupled with speedy internal redevelopment, provision be made in towns (existing and new) outside green belts for land for housing, employment and other developments adequate to the outward movement. The Minister should give a positive lead to the planning authorities by informing them of the amount of population and employment their areas should expect to receive and should plan for by say 1971 —on the basis of a calculation of the overspill arising from redevelopment and the natural increase of population.

To preclude further sprawl, the planning authorities should be asked to allocate the land needed in and adjoining selected small towns or situations suitable for new towns. A relatively limited number of substantial expansions would be preferable to numerous small ones, because they would be more economical in land and public services, better related to employment, and less injurious to countryside amenities.

The quality and speed of these new developments will be much affected by the choice of agencies to carry them out. The Association maintains its belief (now supported by experience) that the best and most efficient agency is the Government-sponsored development corporation. Its use does not preclude extensive participation of private investment and construction within the main land development.

An alternative that might be considered in some areas is that county councils be empowered to undertake the task. They already have much of the outlook and organisation required, and as planning authorities should be competent to allocate land for appropriate uses and to phase its release for development as needed. They would no doubt require some extension of powers for the acquisition, development and management of estates. In some places district councils have undertaken useful small schemes under the Town Development Act, but many are unable to carry the initially unremunerative financial outlay, and few have the organisation for comprehensive development, so that progress under this Act is far too slow to meet the need.

Compensation and Betterment

This Note does not deal with the vexed question of compensation and betterment, on which the Association hopes shortly to issue a statement. Good planning has, as would be expected, improved values in many places, while much compensation has in fact been paid where restrictions have been imposed; and as restrictions (as, for example, in green belts) are virtually necessary, our view in the past has been that some collection for betterment would be financially (and politically) necessary to avoid national cheeseparing on compensation. However that may be, in the national interest we consider that what most matters at the moment is the most advantageous siting of new developments in order to avoid both sprawl and congestion.

Two points may be made in this connection: (1) The 'scarcity' element in rising land prices will be reduced if a sufficiency of land for housing and other purposes is provided for elsewhere than in the green belts; (2) Public acquisition of land for town expansions and new towns is possible under the Town and Country Planning Act 1959 at existing use value, and land can be sold or leased at its full market value for the new permitted use. By the more general use of public acquisition for comprehensive development much of the increase in values brought about by planning and the provision of services could be recouped towards the public costs incurred, and much of the land speculation that arouses public resentment avoided.

Relative Costs

The Association has long maintained that new towns and country-town extensions, coupled with redevelopment at moderate density, are less costly to the public in capital expenditure and subsidies than intensive central redevelopment. Close attention should be given by the Government to the official and unofficial studies of the alternative costs of the two policies. Renewed attention should also be given to the preferences of people in selecting their own environment, as evidenced by surveys and the growing demand for owner-occupation, and to the trends of population movement.

Finally, the wide area over which planning studies and policies now have to range (especially around the conurbations) seems to us to necessitate some form of regional planning organisation in continuous operation. The current consideration of local government boundaries must, in the view of the Association, give high place to this factor.

(Signed) SIR FREDERIC J. OSBORN,
Chairman of Executive.

Office Heating

Various Methods Tested and Compared

TO SECURE factual data on the performance and economics of thermal-storage block-heaters in comparison with other heating systems, eleven office premises equipped with fuel-fired central heating, direct-acting electric heating, or electric floor-heating, were instrumented to yield temperature and consumption records for one heating season, at the end of which block heaters were installed for the following season.

It is concluded from these tests that thermal-storage block-heaters are competitive with any other method of office heating; but that savings in consumption could be effected by improved methods of automatic control, preventing overheating in mild weather; and by means to enable the heat-output to be controlled manually. Large-scale tests on methods of control are still in progress.

The tests themselves and the methods used to obtain supplementary data are described in 'Comparative Tests on Heating Office Buildings by Thermal-storage Block-heaters and Other Methods,' published by the Electricity Council. Copies of this publication, which has been issued as Utilisation Research Report No. 14, may be obtained from the Council at Winsley-street, London, W1.

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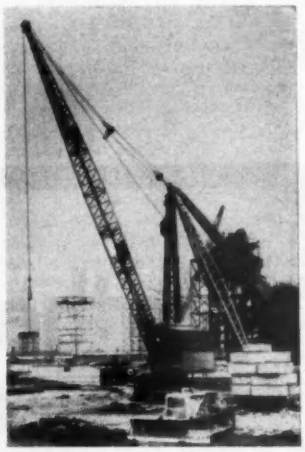

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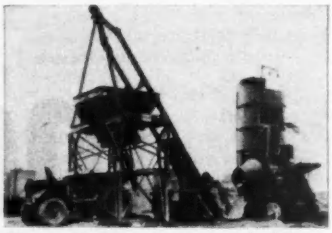

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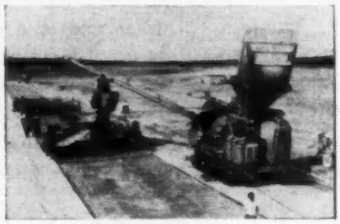

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Industrial Air Pollution in 1959

'Much Justified Complaint' Against Cement Works

THE NUMBER of complaints of industrial air pollution received by the alkali inspectorate in 1959 was one-third more than in 1958 and more than double the total for 1957. This increase, says the 96th annual report of the Chief Alkali Inspector for England and Wales (Dr. J. S. Carter) now published (HMSO, price 4s.), is a measure of public awareness of the nuisance.

The inspectorate's task is to ensure that air pollution from a great variety of industrial processes is reduced to a minimum. Until 1958 they were mainly concerned with processes in the heavy chemical and allied industries; but in 1958, as a sequel to the Clean Air Act, 1956, the scope of the Alkali Act was greatly extended to include many other operations (for example, iron and steel manufacture and electricity production) where the control of smoke, grit and dust presented problems of special technical difficulty.

Generally speaking, processes have been brought under the Act where emissions are particularly dangerous or offensive, or for technical reasons and where there is particular difficulty of control.

During 1959, specific complaints concerning 354 works were investigated, mainly at the request of local authorities. This compared with 270 in 1958 and 133 in 1957. The degree of justification for complaint varied.

Complaints were most numerous against gas and coke works (63), ceramic works (51), electric power stations (31), and iron and steel works (30). There were also 15 complaints against particular areas, for example, a highly industrialised area or one of intensive production. Examples are the Thamesside area (cement), Trafford Park area (heavy industrial and chemical) the Aldridge area (blue brick production) and three Pennine areas (limestone operations and lime burning).

By comparison, the number of calls for the inspectorate's help in dealing with colliery spoilbanks is steadily decreasing. In 1946, 290 visits were paid by the inspectorate to or in connection with colliery spoilbanks; in 1949, 200; in 1954, 107; in 1957, 55; in 1958, 32; and in 1959, 19.

'By and large, the local authorities should now be able to deal with this form of air pollution,' remarks the report.

Cement Works

The report notes the increase of cement production from 10m. tons in 1958 to almost 12m. tons in 1959, and continues: 'The combination of increased production and the driest summer for 200 years led to an accumulation of dust on buildings and vegetation that was both widespread and noticeable. Under these circumstances it is hardly surprising that there was much public complaint, and especially in the region of intensive production on Thames-side.'

After describing the steps taken and planned to reduce the pollution from cement works the report says that away from Thames-side, dust deposition related to smaller areas. 'Nonetheless,' it continues, 'much of the complaint was justified and dust deposition was evident in many places until the end of the dry spell.' The report adds that at some works the complaints related to 'blebs' often the size of confetti falling within a short distance of the chimneys. Their cause is rather obscure though the inspectors now have some useful pointers.

Road Research

New Safety Track at Crowthorne

HIGHER SPEEDS, ever-increasing traffic, as well as the special problems of motorways and other modern roadworks are among the many factors which underline the need for large-scale practical road research facilities. To help in meeting this demand, a new road safety research track is being built at Crowthorne in Berkshire. By 1964, the site will also house the entire road research laboratory of DSIR—at present occupying two different centres at Harmondsworth, Middlesex, and Langley, Buckinghamshire.

Built at a cost of about £½m., the new track is designed for research in traffic and safety measures with particular emphasis on vehicle behaviour, including high speed studies up to 80 mph. It is in the form of a figure of eight with a large paved area in the centre. The total length of the track is about 3 miles, and it will contain a number of different test sections and also varying types of road surfaces. Light and dark coloured sections will be used to study the effect of colour on visibility with headlamps. Provision has also been made for determining the effect of various types of street lighting on the visibility of vehicles, cyclists and pedestrians.

One section approached by a banked bend will be covered with typical road surfacings which can be kept wet by means of a built-in watering system, fed from a large supply tank. This will permit high speed skidding and braking studies to be made. Beneath another section there is a laboratory with a special glass panel let into the surface of the track. Photographic studies can thus be made of the contact areas of tyres as vehicles are driven over it.

Road Junctions

A large paved area in the centre of the track will be invaluable for investigations on the layout of road junctions. These will include experiments on traffic signals, trials of new types of vehicle detectors and control systems for use at isolated junctions and at groups or combinations of junctions. Traffic control and the nature of the areas required for the weaving of traffic will also be studied.

Research on the safety aspects of vehicles will include: The study of vehicle behaviour, particularly during emergency braking on different types of surfaces using various braking systems and components; and a study of vehicles running into kerbs of various shapes and dimensions.

Increase in Hydraulics Research

DSIR Station Enlarged to Meet Expanding Programme

THE HYDRAULICS RESEARCH STATION, DSIR, at Wallingford, Berks, is being enlarged to accommodate an expanding programme of research in both the applied and basic fields. This news is given in the Hydraulics Research Board's report, published* on July 27. The extensions to the Station include enlarging the main hall, which will be completed later this year. A new feature of the main hall will be a wave basin 270 feet in length, part of which will be devoted to background research on coastal erosion, and the remainder to investigations of wave disturbance in harbours and allied problems.

The report of the Director (Mr. F. H. Allen, MA, MAI, MICE) describes the basic researches carried out and the advances made in research techniques. It also contains details of practical investigations into hydraulic problems in many parts of the world.

A particularly interesting technique being developed at the Station is a method for measuring, by means of fluorescent tracers, the rate at which pebbles or sand drift along a coastline (littoral drift). A knowledge of this rate of drift is of importance to the coastal engineer, but hitherto no generally satisfactory methods have been available for determining it. The technique employs a tracer material (Rhodamine B), which glows under ultra violet light, incorporated in artificial pebbles or sand grains. Other points from the report are:

New Reservoir for Liverpool.—Alternative designs for the proposed reservoir at Tryweryn, North Wales—which will provide additional water supplies for Liverpool—were studied by model investigations. Three forms of bellmouth were tested and a modified design has been recommended.

The Newark By-Pass.—The proposed Newark by-pass involves re-routing the Nottinghamshire section of the Great North Road and constructing a new viaduct across the River Trent in an area subject to flooding.

Originally nine 40-ft. flood openings were proposed, but model investigations have shown that six could be eliminated without causing an appreciable increase in flood levels. It has been estimated that the elimination of these arches would save about £170,000 on the cost of construction.

* Hydraulic Research 1959. Report of the Hydraulics Research Board with the Report of the Director of Hydraulics Research. Published for the DSIR by HMSO, price 5s. 6d.

THE BUILDER CURRENT PRICES

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AGGREGATES AND SAND

Delivered site in full lorry loads. Average of prices for Boroughs of Westminster, Paddington, Holborn and St. Pancras.

		£	s.	d.
Pit Ballast	per yd.	1	5	5
Pit Sand	,,	1	3	8
Washed Sand	,,	1	6	9
⅜ in. Shingle	,,	1	4	3
¾ in. Broken Brick	,,	1	0	9
Pan Breeze	,,	1	0	6
Fine or Coarse Foamed Slag Aggregate ... 2 yds. of fine and 2.6 yds. of coarse per ton.	per ton	3	8	0

CEMENT, etc.

Including non-returnable jute sacks or paper bags.

		£	s.	d.
Best British Portland Cement. Standard Specification delivered Charing Cross area.				
6-ton loads and upwards, site	per ton	5	10	0
1 to 6 tons, site	,,	6	2	0
Rapid-Hardening Cement in 6-ton loads and upwards to site	,,	6	0	6
1 to 6 tons do. site	,,	6	12	6
Aquacrete Water Repellent Cement. 32s. 6d. per ton on ordinary cement prices.				
Sulphate Resisting Cement. 32s. 6d. per ton on ordinary cement prices.				
Red, Buff or Khaki Colorcrete in 6-ton lots	,,	8	10	0
Other colours according to colour. In 4-ton lots from 308s. 0d. to 778s. 0d. per ton.				
White Portland Cement	,,	13	15	6
Under 1 ton	per cwt.		16	9
417 Cement (Ultra Rapid Hardening) in 6-ton lots and upwards	per ton	7	2	6
Super Cement (Waterproof), 32s. 6d. per ton above Portland Cement.				
Cullamix Tyrolean Finish, £11 8s. 0d. to £14 3s. 0d. (1-ton loads and upwards.)				
Lightning and Ciment Fondu Brands High Aluminous cement, 6-ton lots and up	,,	15	14	6
Stourbridge Fireclay, 6-ton loads at Railway Depot, London	,,	6	19	0
Stourbridge Fireclay, 6-ton loads (London sites)	,,	7	7	0
Moler Mortar Powder for Flue Bricks (London sites)	per cwt.	1	10	0

BRICKS

Full Loads.

		£	s.	d.
First Hard Stocks	per 1,000	15	19	6
Second Hard Stocks	,,	14	3	6
Mild Stocks (Kiln Burnt)	,,	10	5	0
Mild Stocks	,,	10	0	0
All loaded free into lorry at the works. The question of haulage is still very difficult and prices must be obtained from job to job.				
2½ in. Nominal Fletton Bricks to sites in W.C. district:				
Commons	,,	6	2	0
Cellular Commons	,,	6	2	0
Keyed do.	,,	6	4	0
Rustics	,,	8	2	0
Cellular Rustics	,,	8	2	0
Single Bullnose Commons	,,	8	4	6
Sandfaced	,,	9	2	0
Tuscans	,,	9	17	0
Saxons	,,	10	5	0
Golden Buffs	,,	10	12	0
Dapple Light Facings	,,	10	19	6
Heather Facings	,,	10	15	0
Best Blue Pressed Staffs (London stations)	,,	30	12	6
do. do. (London sites)	,,	30	14	0
do. Bullnose (London stations)	,,	31	11	6
do. do. (London sites)	,,	31	13	0
Blue Wire Cuts (London stations)	,,	27	5	0
do. do. (London sites)	,,	27	6	6
Midhurst Lime Bricks (London sites)	,,	11	0	6
Uxbridge Whites (London sites)	,,	10	19	0
Special Purpose Sandlime Bricks (London sites)	,,	8	12	0
Best Stourbridge Fire Bricks:				
2½ in. (London stations)	,,	30	12	3
2½ in. (London sites)	,,	31	1	0
3 in. (London stations)	per 1,000	36	14	9
3 in. (London sites)	,,	37	5	3
2¾ in. Moler Flue Bricks (London sites)	,,	31	10	0
2½ in. Machine-made Sandfaced Red Facings (London sites)	,,	17	11	6
2½ in. Machine-made Multi Red Facings (London sites)	,,	17	16	6
2½ in. Hand-made Sandfaced Red Facings (London sites)	,,	19	15	0
2½ in. Hand-made Sandfaced Multi-Colour Facings (London sites)	,,	19	15	0
Hand-made Sandfaced Cherry Red Facings, Berkshire district (London sites)	,,	19	13	0
Hand-made Sandfaced Multi-Colour Facings, Berkshire district (London sites)	,,	19	13	0
Rubber Bricks for gauged arches (London sites)	,,	49	1	3
2½ in. Surrey Clamp Burnt Multi Stock Facings (London sites)	,,	15	6	6
2½ in. Surrey Kiln Burnt Multi Stock Facings (London sites)	,,	16	7	0
Glazed Bricks (London sites), White, Ivory, Brown:				
Stretchers	,,	64	0	0
Headers	,,	63	0	0
Quoins, Bullnose and 4½ in. Flats	,,	80	0	0
Double Stretchers	,,	85	0	0
Double Headers	,,	77	10	0
One side and two ends	,,	87	0	0
Two sides and one end	,,	89	10	0
Splays and Squints	,,	83	0	0
Cream and Buff, £3 extra over White. Other colours, hard glaze, £8 10s. 0d extra over White. All above prices plus 32½% for Best quality and plus 32½% less 10% for Second quality.				

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		£	s.	d.
HOLLOW CLAY PARTITION BLOCKS (Keyed)				
Minimum lorry loads				
*2½ in. 140 yds.	per yd. sup.		4	6
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*3 in. (6 cavity) 110 yds.	,,		5	7
*4 in. (6 cavity) 90 yds.	,,		7	0
6 in. (8¾ in. × 5½ in.) 1,250 blocks	per 1,000	27	13	0
* Half blocks at no extra charge.				
CLINKER CONCRETE				
2 in. 100 yds.	per yd. sup.		3	9
2½ in. 85 yds.	,,		4	4
3 in. 75 yds.	,,		5	3
4 in. 55 yds.	,,		6	5
CRANHAM TERRA COTTA				
2 in.	,,		6	9
2½ in.	,,		7	9
3 in. Load bearing quality	,,		8	9
4 in. do. do.	,,		10	9
MOLER PARTITION BLOCKS				
2 in. 150 yds.	,,		11	3
2½ in. 120 yds.	,,		14	0
3 in. 100 yds.	,,		15	0
4 in. 90 yds.	,,		17	0
LIGHTWEIGHT CONCRETE BUILDING AND PARTITION BLOCKS OF VARIOUS SOURCES OF MANUFACTURE				
2 in. 100 yds.	per yd. sup.		5	4
2½ in. 80 yds.	,,		6	5
3 in. 65 yds.	,,		7	5
4 in. 50 yds.	,,		9	4
4½ in. 44 yds.	,,		10	2
6 in. 33 yds.	,,		13	5
THERMALITE-YTONG PARTITION BLOCKS				
2½ in. 144 yds.	,,		7	0
THERMALITE-YTONG LOAD-BEARING INSULATING BLOCKS				
3 in. 120 yds.	per yd. sup.		8	5
4 in. 90 yds.	,,		11	0
5 in. 72 yds.	,,		13	9
6 in. 60 yds.	,,		16	6
8½ in. 42 yds.	,,	1	3	8
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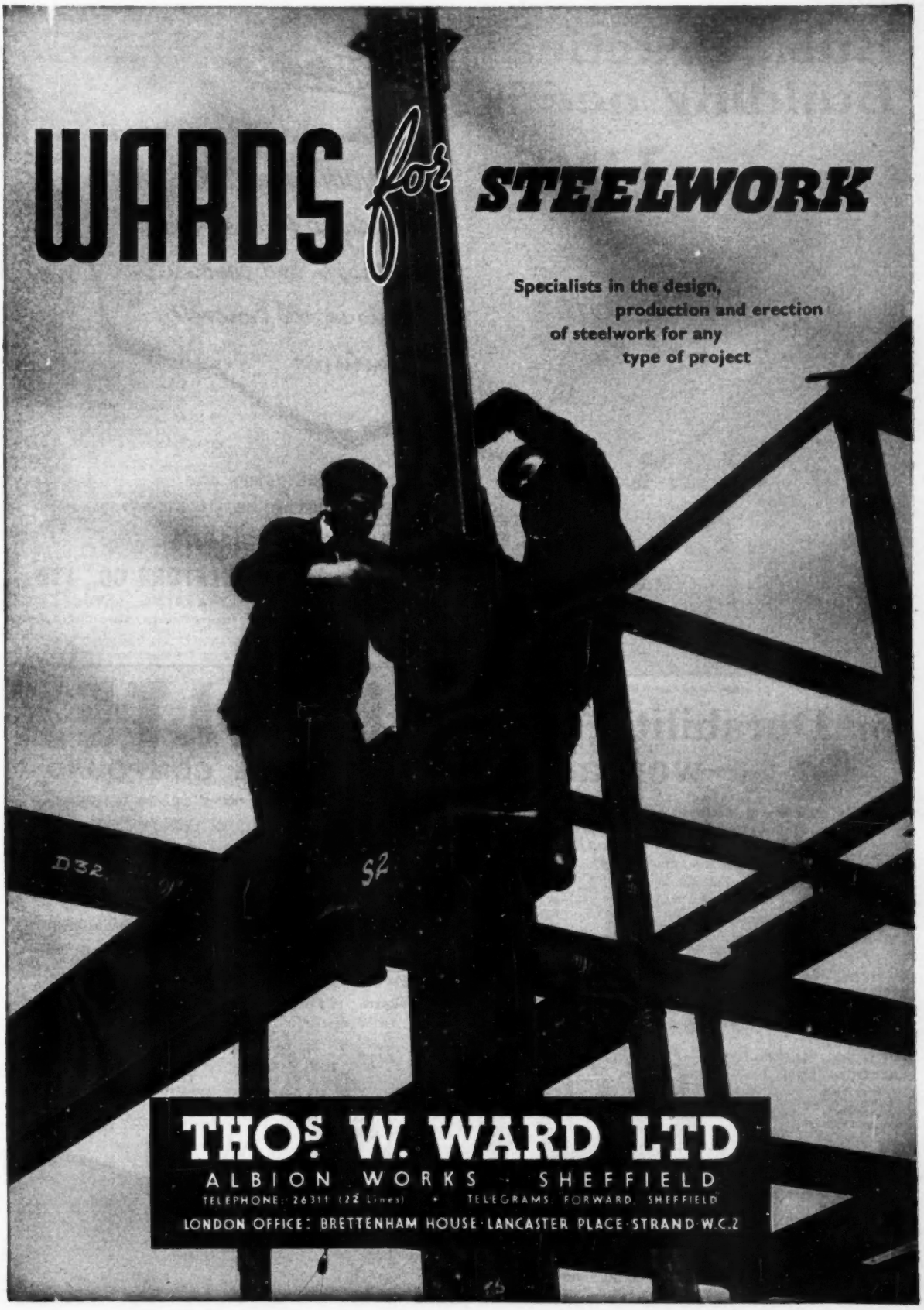
Floor Blocks 12 in. × 12 in. delivered in full lorry-loads				
3 in.	per 1,000	34	16	0
4 in.	,,	37	8	0
5 in.	,,	44	17	0
6 in.	,,	51	4	0
7 in.	,,	62	18	0
8 in.	,,	73	11	0
9 in.	,,	81	0	0
10 in.	,,	89	15	0
Filler Tiles in multiples of 10 tiles per 1,000 multiples:				
12 in. × 3 in. × ⅝ in.	,,	42	15	0
12 in. × 4 in. × ⅝ in.	,,	73	15	0
10 in. × 5 in. × ⅝ in.	,,	73	15	0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But... Practical Building needs LIME

London County Council Sheerwater Estate, Woking, Surrey.

for Durability —workability

You take no chances with LIME/gauged mortars. Under every possible *practical* test, LIME has proved itself supreme.
Remember: LIME/gauged mortars ensure without question:

- Reliable strengths within closely known limits.
- Sufficiently rapid stiffening to take weight of superimposed structure as work proceeds.
- The most suitable texture for frost resistance.
- Minimum shrinkage producing weatherproof brickwork and masonry.
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45

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Tel: HOLborn 5434

or

THE LIMESTONE FEDERATION
Manfield House, 376–8 Strand,
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Tel: COVent Garden 0621

LIME

use **LIME** *tested by time*

A booklet on LIME/sand mixes gauged with cement and conforming to British Standard Codes of Practice will be sent free on application to either of the above.

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—This is your safeguard to ensure satisfaction.

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Remember to ask about DURAJOINT and DURASEAL — watertight PVC strips for expansion and construction joints in all concrete structures.

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m and i THE MICANITE AND INSULATORS CO., LTD.,
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LEVELTEX
SCREEDING COMPOUND

Is a means of levelling uneven surfaces, i.e., concrete, granolithic, floorboards, Tiles, Flagstones, Brickpaving, etc., to receive Floor-finishes such as Linoleum, carpets, wood-block, parquet, cork tiling, etc., with a minimum of thickness. It can be laid from $\frac{1}{16}$" to $\frac{1}{4}$" thickness and can be trowelled to a "feather-edge." Setting time is approximately 5—7 hours and hardening time 12—14 hours according to atmospheric conditions.

Write for particulars to
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(INDUSTRIAL) LTD.,
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STONEWARE DRAIN PIPES, etc.

The following are the percentages to be added to the Revised Standard List (Nov., 1956) prices delivered London Area.
Delivered ex Merchants Wharf or Depot.

	Over 2 tons	Over 100 pieces Under 2 tons	Under 100 pieces Under 2 tons
Best Quality ...	−10%	+5%	+12½%
BSS Best Quality...	+10% −10%	+10% +5%	+10% +12½%
Tested Quality ...	+37½% −10%	+37½% +5%	+37½% +12½%
BSS Tested Quality	+47½% −10%	+47½% +5%	+47½% +12½%

		£	s.	d.
3 in. Land Drain Pipes (in 12 in. lengths)	per 1,000	12	4	0
4 in. do. do.	,,	16	7	0
6 in. do. do.	,,	33	13	0
9 in. do. do.	,,	63	12	0

DAMP COURSE

		£	s.	d.
Hessian base bitumen 7 lb. per yd. sup. in 24 ft. rolls cut to wall widths in lots of £6 value and over delivered London area	per yd. sup.		3	5
Asbestos base do. 7 lb. per yd. sup.	do. do. ,,		5	2
Lead lined bitumen do. 9½ lb. per yd. sup.	do. do. ,,		12	2
18 in. × 9 in. British damp course slates	per 1,000	43	8	11
14 in. × 9 in. do. do.	,,	32	8	2
9 in. × 9 in. do. do.	,,	18	18	9
18 in. × 4½ in. do. do.	,,	19	19	9
14 in. × 4½ in. do. do.	,,	15	18	3
9 in. × 4½ in. do. do.	,,	10	14	3

STONE

		£	s.	d.
Bath Stone				
Monks Park	per ft. cube		10	3
St. Aldhelm Box Ground	,,		11	6
Delivered in railway trucks at South Lambeth B.R. Western Region.				
Doulting Stone Random Blocks. Delivered London area	,,		10	10
Beer Stone. Delivered London area	,,		10	6
Portland Stone—				
Brown Whitbed in random blocks, 20 ft. average delivered in railway trucks at Nine Elms, B.R. Southern Region	,,		9	10
Yorkshire Stone—Blue Robin Hood Quality. Delivered to site London in 6-ton lots.				
9 in. × 3 in. Rubbed, weathered, throated and stolled cills	per ft. cube	4	5	10
12 in. × 6 in. do. do. do.	,,	3	1	2
12 in. × 3 in. Plain coping, twice throated	,,	2	7	6
12 in. × 3 in. Weathered and twice throated coping	,,	3	3	3
14 in. × 6 in. do. do. do.	,,	2	17	0
4½ in. × 9 in. Plinth rubbed on top and face ...	,,	2	11	0
3 in. sawn two sides Slabs, random sizes ...	per ft. sup.		9	1
Templates and Cover Stones, 3 in., 4 in. and 6 in. thick, edges coped for rendered brickwork ...	per ft. cube	1	11	3
do. do. fair one edge for fair faced brickwork	,,	1	17	0
Hard York—				
12 in. × 2 in. Square Steps, rubbed on top and edge	per ft. run		11	0
14 in. × 3 in. Round-nosed Steps, rubbed on top and front	per ft. cube	2	18	3
12 in. × 6 in. Plain Steps, rubbed top and front	,,	2	11	0
2 in. Rubbed and Jointed Paving, given sizes ...	per ft. sup.		10	3
2 in. Sawn Paving, edges squared, in random sizes	per yd. sup.	3	12	0

TILES AND PANTILES

Delivered London area by road in 6 tons or over per 1,000.

	£	s.	d.
Machine-made Pantiles and French pattern Tiles from Lincolnshire district	29	19	0
Hand-made Pantiles Berkshire district	55	18	0
Hand-made Double Roman Bridgwater district ...	64	4	1
Hand-made 10½ × 6½ tiles Berkshire district	15	18	3
Machine-made 10½ × 6½ Staffordshire district	15	2	6
Hand-made Hip and Valley tiles per doz.	1	11	10
Machine-made Hip and Valley tiles do.	1	10	1
Concrete tiles 10½ × 6½	8	10	0
do. Interlocking (49S)	19	16	6

NOTE.—Breakage in transit, purchasers' responsibility.

SLATES

First-quality Slates from Penrhyn or Portmadoc, carriage paid in full truck loads to London Rate station. Per 1,000 actual.

	£	s.	d.
24 × 12	155	10	0
22 × 12	123	10	0
22 × 11	111	10	0
20 × 12	104	10	0
20 × 10	102	0	0
18 × 10	69	10	0
18 × 9	61	0	0
16 × 10	54	8	10
16 × 8	42	12	4

NOTE.—Breakage in transit, purchasers' responsibility.

TIMBER

				£	s.	d.
Softwood		Ex Wharf	per standard	£115 to £140		
Joinery quality		do.	,,	£94 — £98		
Carcassing quality		do.	,,	£110	0	0
1 in. Tongued and Grooved Flooring		do.	,,			
Hardwood						
Mahogany—	African S.E.	do.	per ft. cube	1	10	0
do.	Honduras S.E.	do.	,,	3	5	0
Oak	European S.E.	do.	,,	2	10	0
do.	Japanese S.E.	do.	,,	3	0	0
do.	English Logs sawn ...	do.	,,	2	0	0
Teak	8 in. average S.E. ...	do.	,,	3	17	6
Walnut	African Logs sawn ...	do.	,,	1	2	6

DOORS (in Lots I–II

Delivered London area.

		£	s.	d.
1½ in. 4 Horizontal Panel. Pattern 4 in. deal				
2 ft. 0 in. × 6 ft. 6 in.	each	1	16	0
2 ft. 3 in. × 6 ft. 6 in.	,,	1	17	6
2 ft. 6 in. × 6 ft. 6 in.	,,	1	18	6
2 ft. 9 in. × 6 ft. 6 in.	,,	2	0	6
2 in. do. but top panel open. Pattern 4 × G in deal				
2 ft. 6 in. × 6 ft. 6 in.	,,	2	9	0
2 ft. 9 in. × 6 ft. 6 in.	,,	2	11	6
2 in. 2 Panel top panel open. Pattern 2 × G in deal				
2 ft. 6 in. × 6 ft. 6 in.	,,	2	3	0
2 ft. 9 in. × 6 ft. 6 in.	,,	2	5	0

SUNDRIES

Delivered London area.

		£	s.	d.
1 in. Wood Wool Slabs 6 ft. 0 in. × 2 ft. 0 in. in quantities of 1 ton (89 yds. to 1 ton)	per yd.		6	2
1½ in. do. (67 yds. to 1 ton)	,,		8	0
2 in. do. (52 yds. to 1 ton)	,,		9	9½
2½ in. do. (45 yds. to 1 ton)	,,		11	3
3 in. do. (39 yds. to 1 ton)	,,		12	7½
Quantities under 1 ton add 1d. per ½ in. of thickness.				
½ in. imported insulation Board, quantities over 5,000 sq. ft.	per 100 sq. ft.	2	2	6
⅛ in. Hardboard do.	,,	1	17	6
3/16 in. do. do.	,,	2	4	6
3/16 in. Asbestos Flat Building Sheets	per yd. sup.		4	3½
¼ in. do. do. do.	,,		6	0
Roofing Felt 1-ply	,,		1	9
do. 2-ply	,,		2	2½
Best Scotch Glue in slabs	per ½ cwt.	5	8	0
do. pearl	,,		5	8	0
Croid Glue	28 lb.	2	6	0
Cut Nails 3 in. (1-ton lots)	per ton	78	10	0
do. 4 in. and up (1-ton lots)	,,	75	0	0
Wire Nails 3 in. (4-cwt. lots)	per cwt.	3	13	5
do. 4 in. and up (4-cwt. lots)	,,	3	12	10

METALS

STEEL JOISTS, ETC.

				£	s.	d.
Basis Joists— 6 in. × 5 in., 8 in. × 5 in., 8 in. × 6 in., 10 in. × 6 in., 12 in. × 6 in., plain cut to lengths delivered London area			per ton	47	15	0
Extra for sizes						
3 in. × 1½ in.	4 in. × 1¾ in.		,,	3	10	0
3 in. × 3 in.	... ...		,,	2	10	0
4 in. × 3 in.	... ...		,,	2	5	0
10 in. × 4½ in.	... ...		,,	1	10	0
5 in. × 2½ in.	5 in. × 3 in.		,,	1	15	0
4¾ in. × 1¾ in.	... ...		,,	3	5	0
5 in. × 4½ in.	7 in. × 3½ in.	13 in. × 5 in. ...	,,		15	0
6 in. × 3 in.	24 in. × 7½ in.		,,	2	0	0
6 in. × 4½ in.	7 in. × 4 in.	8 in. × 4 in.	,,	1	5	0
9 in. × 4 in.	10 in. × 5 in.					
12 in. × 5 in.	22 in. × 7 in.		,,	1	0	0
9 in. × 7 in.	10 in. × 8 in.	12 in. × 8 in.	,,		10	0
14 in. × 5½ in.	14 in. × 6 in.	14 in. × 8 in.				
15 in. × 5 in.	15 in. × 6 in.	16 in. × 6 in.				
16 in. × 8 in.	18 in. × 6 in.	18 in. × 7 in.				
18 in. × 8 in.	20 in. × 6½ in.	20 in. × 7½ in.				
Steel angles average price			,,	48	15	0
Steel tees average price			,,	49	15	0
Fabricated work delivered London—						
R.S. Joists cut and fitted			,,	64	15	0
Compound girders			,,	69	5	0
Stanchions			,,	74	15	0
Compound stanchions			,,	79	5	0
In Roof Work—Trusses and Purlins			,,	89	10	0
Average prices not for awkward work.						
Angle cleats and ⅝ in., ¾ in. and ⅞ in. bolts average price London area			per cwt.	5	10	0

FERRO-CONCRETE BARS

		£	s.	d.
Mild Steel Ferro-Concrete bars British manufacture to BSS785 ex London Stock 1 in. diam., and upwards	per ton	49	10	0
¾ in. diam.	per ton extra	8	12	0
5/16 in. do.	,,	6	12	6
⅜ in. do.	,,	4	12	6
½ in. do.	,,	3	2	6
⅝ in. do.	,,	1	10	0
¾ in. and ⅞ in. diam.	,,		15	0

MILD STEEL TUBES

Tubes to BSS 1387—1957 and Fittings. *Revised* list prices and following discounts :

Galvanised Tube—	Under 1 ton	Over 1 ton	W.I. Fittings	Malleable Fittings
Light	−39½%	−41 %	Light −26½%	Malleable List
Medium	−35½%	−37 %	Heavy −22½%	−18½% +40%
Heavy	−27½%	−29½%		
Black—				
Light	−50%	−51½%	Light −32½%	Malleable List
Medium	−46%	−47½%	Heavy −28½%	−18½%
Heavy	−38½%	−40%		

C.I. HALF-ROUND GUTTERS

Delivered London per yd. in 6 ft. lengths.

	Gutters	Nozzles	Stop Ends
3 in.	4/0½	3/7	1/–
3½ in.	4/4½	3/11	1/–
4 in.	5/8	4/5	1/7
4½ in.	6/3	4/11	1/10
5 in.	6/11½	5/4	2/2

METALS—*continued*

C.I.O.G. Gutters

Per yd. in 6-ft. lengths :	Gutters	Nozzle	Stop Ends
3 in.	5/2½	4/8	1/3
3½ in.	5/10	4/8	1/7
4 in.	6/5	4/11	1/10
4½ in.	6/11½	5/8	2/2
5 in.	7/7½	6/5	2/6

C.I. Rain-Water Pipes

	Pipe	Bends	Branches
2 in.	8/7½	4/5	6/4
2½ in.	8/7½	4/11	8/6
3 in.	9/8½	6/2	9/2
3½ in.	11/0½	7/3	11/-
4 in.	12/9	8/9	13/1

L.C.C. Coated Soil Pipe

2 in.	9/8½	7/7	9/2
2½ in.	10/4	8/5	11/5
3 in.	11/7	9/2	13/7
3½ in.	12/11½	11/5	15/10
4 in.	14/9	12/9	18/8

Above prices for gutters, rain-water and soil pipes for under 5-cwt. lots. only. Lots over 5 cwt. see List No. 3300, dated February 1, 1955, plus 25% and tonnage allowance. 4-ton lots 5%, 2-ton lots 2½%.

L.C.C. Coated Drain Pipes

In 9-fts.:	cwt.	qt.	lb.	Per yd.	Bends	Branches
4 in.	1	1	17	35/3	23/9	42/-
6 in.	2	0	1	51/7	63/9	101/-

Asbestos Rain-Water Pipes and Fittings

All less 17½% discount.

		2 in.	2½ in.	3 in.	4 in.
Pipes, 6-ft. lengths	per yd.	4/7	4/10½	5/11	7/10
Shoes	each	3/-	3/3	3/10	5/2
Single Branches	,,	4/8	5/6	6/7	9/2
Bends, square or obtuse	,,	3/3	3/7	4/8	6/7
Swan Necks, 4½ in. proj.	,,	3/7	4/8	5/2	7/3
do. 6 in do.	,,	3/10	5/2	5/10	7/10

Asbestos O.G. Gutters and Fittings

		4 in.	4½ in.	5 in.	6 in.
Gutters, 6-ft. lengths	per yd.	4/4	4/9½	5/9	6/10½
Drop ends	each	3/6	4/-	4/9	5/5
Stop ends	,,	1/1	1/2	1/3	1/5
Angles	,,	3/7	4/1	5/-	5/10
Nozzles	,,	3/6	4/-	4/9	5/-
Union Clips	,,	1/9	2/1	2/6	2/11

Asbestos Half-Round Gutters and Fittings

	per	3 in.	4 in.	4½ in.	5 in.	6 in.
Gutters, 6-ft. lengths	yd.	3/0½	3/7½	3/8½	4/4½	6/1
Drop ends	each	2/6	3/-	3/3	3/7	5/2
Stop ends	,,	1/-	1/1	1/2	1/3	1/5
Angles	,,	2/10	3/3	3/7	3/10	5/2
Nozzles	,,	2/6	3/-	3/3	3/7	5/2
Union Clips	,,	1/3	1/4	1/5	1/7	2/5

	Per ton basis in London £	s.	d.
Iron—Staffordshire Crown Merchant Quality	52	17	6
Mild Steel Bars	47	8	6
Mild Steel Hoops	49	0	0

	Ex Merchant's Stock per ton Two-ton lots £	s.	d.
Soft Sheets C.R. and C.A.—			
20 gauge	62	7	6
24 gauge	64	17	6
26 gauge	67	17	6
Galvanised Corrugated Sheets, 6-ft. to 9-ft. —			
20 gauge	70	18	0
24 gauge	74	8	0
26 gauge	79	13	0
Galvanised Flat Sheets C.R. and C.A. :			
20 gauge	72	8	0
24 gauge	75	18	0
26 gauge	81	3	0

ALUMINIUM AND ALUMINIUM ALLOYS

(Base Prices)		£	s.	d.
Sheet BS 1740 S1C 18 SWG (36 in. wide)	per lb.		3	0
Sheet BS 1470 NS3 Utility 18 SWG (36 in. wide)	,,		2	11
Coiled strip BS 1470 S1C 18 SWG (24 in. wide)	,,		2	11
Coiled strip BS 1470 NS3 Utility 18 SWG (24 in. wide)	,,		2	10½
Coiled strip for flashing, high purity, 22 SWG (12 in wide)	,,		3	1½
Corrugated sheet BS 1470 NS3 Circular Profile 8 ft. × 32 in. × 20 SWG	per sheet	1	13	6
Corrugated sheet BS 1470 NS3 Industrial... Profile 8 ft. × 31¾ in. × 20 SWG	,,	1	19	3
Corrugated sheet BS 1470 NS3 Mansard... Profile 8 ft. × 31¾ in. × 20 SWG	,,	1	12	7
Extruded section BS 1476 E1C simple moulding	per lb.		2	10
Extruded section BS 1476 E1C 1 in. diam. round	,,		2	7½
Extruded section BS 1476 HE10WP simple angle	,,		3	1½
Extruded section BS 1476 HE10WP 1 in. diam. round	,,		3	0½
Tubing BS 1471 T1C 1½ in. O/D × 20 SWG	,,		6	6½
Tubing BS 1471 HT19WP 1½ in. O/D × 20 SWG	,,		4	0½

PLUMBERS' BRASS WORK, etc.

Delivered in London area.

All per dozen	M.O.H. ½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
Screwdown bib cocks Crutch head for iron	87/-	128/-	—	—	—	—
Toilet bib cocks for iron	109/-	158/5	—	—	—	—
Screwdown stop cocks for iron	66/-	95/9	188/-	363/-	522/6	917/6
do. with two unions for lead	89/-	132/-	234/4	472/-	623/6	1,389/6
Double nut boiler screws	18/8	26/5	47/6	48/6	67/-	93/6
Heavy Croydon ball valves	77/-	193/6	312/5	568/8	734/10	—
Plumbers' union brass lead to iron	19/6	23/6	38/6	52/10	70/6	165/-
	1¼ in.	1½ in.	2 in.	3 in.	3½ in.	4in.
Caps and Screws	33/-	40/8	59/6	92/5	118/10	155/3
Brass Sleeves	—	31/11	31/11	56/2	74/10	91/5
	1½ × 6 lb.	1½ × 6 lb.	2 × 7 lb.	3 × 7 lb.		
Lead P. trap with brass cleaning screws	68/6	85/6	137/-	233/9		
Lead S. trap do. do.	82/9	102/9	168/3	302/3		

Solder :			s.	d.
Plumbers'	1 cwt. lots	320/-	14 lb. lots per lb.	3	7
Tinmen's	,, ,,	404/-	,, ,, ,,	4	5
Blow pipe	,, ,,	407/-	,, ,, ,,	4	6

Copper Tubes and Sheets

Copper tubes BSS 659/1944 on the basic price of 29d. per lb. plus gauge and manufacturing extras as follows. Minimum quantities, 10 cwt.

	Extra d.		d.		d.
¼ in. × 19 gauge	15½	Total per lb.	44½	Approx. per ft.	12
⅜ in. × 19 ,,	13½	,, ,,	42½	,, ,,	16½
1 in. × 18 ,,	12½	,, ,,	41½	,, ,,	25½
1¼ in. × 18 ,,	11½	,, ,,	40½	,, ,,	31
1½ in. × 18 ,,	11½	,, ,,	40½	,, ,,	37
2 in. × 17 ,,	13½	,, ,,	42½	,, ,,	59½

Small Quantity extras :—

10 cwts. to 5 cwts.	plus ½d. per lb.
5 cwts. to 2 cwts.	,, 1d. ,,
2 cwts. to 1 cwt.	,, 2d. ,,

	£	s.	d.
Rolled Copper sheets up to 48 in. wide, basic price plus gauge and manufacturing extras	280	0	0

Zinc

		£	s.	d.
Sheet Zinc, 10 gauge (25 SWG), 5 cwt. lots upwards	per cwt.	7	15	3
,, ,, 12 gauge (23 SWG), ,, ,, ,,	,,	7	14	9
,, ,, 14 gauge (21 SWG), ,, ,, ,,	,,	7	13	6

Brass Tubes

Brass tubes, basic price, plus gauge and manufacturing extras	per lb.		2	0

LEAD SHEET AND PIPES

Basis selling price to one address in London or Home Counties :

		£	s.	d.
Lead Sheet, English, 3½ lb. substance and upwards	per ton	109	0	0
,, Water Pipe, in coils	,,	111	5	0
Lead Soil Pipe, 10 ft. or over 2 in. to 4 in. in dia.	,,	112	15	0
,, ,, ,, over 4 in. dia.	,,	114	15	0
,, Gas or Untinned Compo pipe	,,	112	15	0

5 cwt. lots and over less 6d. per cwt. off basic prices.

Extras over Basis for quantities under 5 cwt.:

3 cwt. and under 5 cwt.	per cwt.	4	0
1 cwt. do. 3 cwt.	,,	6	0

Smaller quantities than 1 cwt. priced specially.

Supplying sheet lead and lead pipe to less than basis weights and cutting to sizes less than basis charged extra according to current trade schedule.

Allowance for Old Lead, collected, £63 0s. 0d. per ton weighed at buyer's works.

PLASTER, etc.

		£	s.	d.
Coarse Pink in 1-ton loads and over delivered on site	per ton	8	4	6
do. White do. do. do.	,,	8	14	0
Sirapite Coarse BSS 1191 Class C do.	,,	8	15	9
do. Fine do. do. do.	,,	9	3	3
do. Browning BSS 1191 Class B do.	,,	8	15	9
do. Board Finish do. do.	,,	8	15	9
Blue Lias Lime, in 6-ton loads	,,	6	14	6
Hydrated Lime (Grey), in 6-ton loads	,,	5	10	0
do. (White) do.	,,	6	0	0
Lump Lime (Grey) do.	,,	5	7	0
do. (White) do.	,,	5	14	6
White Keen's or Parian Cement, in 1-ton loads	,,	11	19	3
Pink Keen's or Parian Cement, in 1-ton loads	,,	11	14	0
Granite Chips, in 6-ton loads	,,	2	5	3
Hair	per cwt.	4	17	6
Gypsum Plaster Lath or Base Board, ⅜ in. thick, 600 yds. and over in one delivery. Delivered site	per yd.		2	3½
1,200 yds.	,,		2	2½
do. Insulating do. ⅜ in. thick, 600 yds. and over in one delivery. Delivered site	,,		2	9
1,200 yds.	,,		2	9
Gypsum Plaster Wall Boards, 3 and 4 ft. wide 6 to 12 ft., ⅜ in. thick, 600 yds, and over in one delivery. Delivered site	,,		2	6½
1,200 yds.	,,		2	5½
do. Insulating do. ⅜ in. thick, 600 yds. and over in one delivery. Delivered site	,,		3	0
1,200 yds.	,,		3	0

The £.s.d. of OSAL★
—*Hardening New Floor Toppings*

It's not the cost per gallon but the cost per yard that counts

On this basis Tricosal, which hardens a square yard of 3/1 sand and cement screed or granolithic paving 1 in. thick for only 7d., is the most economical as well as the most efficient additive. It hardens integrally and, being a liquid, mixes with the gauging fluid and is evenly distributed throughout the mix.

INTEGRAL CEMENT
TRICOSAL
HARDENER-PROOFER

Tricosal is now available in non-returnable containers.

For 30 years or more Tricosal has been specified by leading Architects not only for hardening but for waterproofing cement and concrete and increasing their resistance to oils and acids. Send for Information Leaflet No. 1.

★ *OSAL is the generic name for the products of A. A. Byrd & Co. Ltd.—" Florosal " for Surface Hardening and protection of Concrete, Stone and Cement—" Neocosal " for Surface Waterproofing of Brick, Concrete and Stone, and " Tricosal ". Literature on each individual product is available from*

A. A. BYRD & CO. LTD. (Dept B3) 210 TERMINAL HOUSE, GROSVENOR GARDENS, LONDON, S.W.1.
Phone : SLOane 5236. Grams : Byrdicom, Wesphone, London. Works: Basingstoke, Hants.

WIREWELD

where you want it —when you want it

Deliveries of Wireweld fabric are made direct to sites anywhere in the country *at short notice.* Wireweld is a high-tensile steel fabric, manufactured from hard drawn steel wire electrically welded at all intersections to B.S. 1221, Part A. It is made in a wide range of sizes in oblong and square mesh.

If you want to put steel into concrete, get in touch with

G.K.N. Reinforcements Ltd.

(Formerly Twisteel Reinforcement Ltd.)

197 KNIGHTSBRIDGE, LONDON, S.W.7 (KENSINGTON 6311)

MIDDLESBROUGH: *(Middlesbrough 3843)*
SMETHWICK, BIRMINGHAM: *(Smethwick 1991)*
GLASGOW: *(Bell 2444)* MANCHESTER: *Ardwick 1691)*

BRISTOL: *(Bristol 21555)* LEEDS: *(Leeds 27311)*
CARDIFF: *(Cardiff 45220)* LEICESTER: *(Leicester 25114)*
Works: SMETHWICK, WIGAN & GLASGOW

PAINTS AND DISTEMPER

Delivered London area.		£	s.	d.
Ceiling Distemper	per cwt.	1	7	6
Washable Distemper	,,	5	15	0
Gloss Paint	per gal.	2	16	0
Super Snowcem cement paint (in 1 cwt. drums)	per cwt.	4	0	0
LEAD PRODUCTS AND OILS				
Ground White Lead, in 1 cwt. kegs	per cwt.	8	7	6
Genuine White Lead Paint, 1-19 gal. lots in 1 gal. tins	per gal.	3	6	6
Genuine Red Lead, Dry, 1 cwt. keg (10 ton lots)	per cwt.	5	12	6
do. do. do. (1 cwt. lots)	,,	6	19	0
Genuine Linseed Oil Putty, 1 cwt. keg	,,	2	13	6
Size XD quality 28 lb.	per tin		9	0
Raw Linseed Oil (5 gal.) drums extra	per gal.		19	2
Boiled Linseed Oil (5 gal.) do.	,,		20	0
SUNDRIES				
Turpentine substitute (5 gal.) drums extra	,,		5	4⅜
do. do. (40 gal.) do.	,,		4	8⅜
Solignum, Brown (5 gal. cans) Exterior	,,		8	8
Creosote (40 gal. barrels)	,,		2	3
Paste Powder (1 lb. packets)	per lb.		2	4
White Lining Paper	per piece		1	2

VARNISHES, etc.

Delivered London area.		£	s.	d.
Oak Varnish, Outside or Inside	per gal.	2	0	0
Oal Pale Copal do. do.	,,	2	0	0
Hard Drying Oak for Inside	,,	2	5	0
Crystal Paper Varnish do.	,,	2	8	0
Eggshell Flat Varnish do.	,,	2	2	0
Finest Carriage Varnish	,,	2	7	0
Front Door Varnish	,,	2	4	0
Japan Gold Size	,,	1	12	0
Black Japan	,,	1	16	0
Brunswick Black	,,	1	12	0
Berlin Black	,,	1	10	0
Terebene	,,	1	12	0
Knotting (1 gal. bottles free)	,,	1	15	0
French and Brush Polish (do.)	,,	1	15	0

GLASS

Delivered London area.		s.	d.
18 oz. Sheet Glass Ordinary Glazing Quality— Cut Sizes	per ft. sup.		9½
24 oz. do. do. do. do.	,,		11½
26 oz. do. do. do. do.	,,	1	2½
32 oz. do. do. do. do.	,,	1	6½
⅛ in. Rolled Plate	,,	1	2½
3/16 in. Rolled and Rough Cast	,,	1	5
¼ in. do. do.	,,	1	5¾
⅛ in. Figured Rolled and Cathedral, Standard patterns—			
White Group 1	per ft. sup.	1	2½
do. Group 2	,,	1	8¼
do. Standard Tints	,,	2	1½
do. Special Tints	,,	7	3
⅛ in. Pinstripe, Hammerstripe, Reeded, Reedlyte and Luminating Group 3	,,	1	7½
¼ in. Wired Cast	,,	1	9¼
¼ in. Georgian Wired Cast	,,	1	9½
Hollow Glass Blocks—			
P.B.2 Cross reeded 5¾ × 5¾ × 3⅞ in.	each	3	6
P.B.3 Broad reeded 7¾ × 7¾ × 3⅞ in.	,,	5	4
P.B.32 Cross reeded 7¾ × 7¾ × 3⅞ in.	,,	5	4
P.B.4 Prismatic 7¾ × 7¾ × 3⅞ in.	,,	6	0
P.B.5 Flemish 7¾ × 7¾ × 3⅞ in.	,,	5	4
P.B.6 Boomerang 7¾ × 7¾ × 3⅞ in.	,,	6	0
Half Size Blocks—			
P.B.32 Cross reeded 7¾ × 3¾ × 3⅞ in.	,,	4	6
Radiused Corner Blocks to match up with—			
P.B.2 Cross reeded	,,	7	6
P.B.3 Broad reeded	,,	9	0
P.B.32 Cross reeded	,,	9	0
P.B.2, P.B.3, P.B.32 are also supplied in Light Diffusing Blocks at same price.			
¼ in. Polished Plate Glass, G.G. quality—			
In plates not exceeding 2 ft. sup.	per ft. sup.	4	7
,, ,, ,, 5 ft. sup.	,,	5	7
,, ,, ,, 45 ft. sup.	,,	6	9
,, ,, ,, 100 ft. sup.	,,	7	4
¼ in. Polished Plate, extra sizes, *i.e.*, plates exceeding 100 ft. sup. or 160 in. one way or 96 in. both ways. G.G. quality—Not exceeding 135 ft. sup. or 240 in. one way or 130 in. both ways	,,	10	9
Not exceeding 180 ft. sup. or do.	,,	14	3

Plates exceeding 180 ft. sup. prices on application.
Substances other than ¼ in. Polished Plate at Special Prices.
Quantity Tariff—Sheet and Sundry Glass.

The following prices apply to minimum quantities of one size and one pattern delivered by the manufacturer to one site at one time.

Description of Glass	Minimum quantity	per ft. sup. s.	d.
18 oz. sheet O.Q.	3,000		6¾
24 oz. ,, ,,	2,000		8¼
26 oz. ,, ,,	2,000		11
32 oz. ,, ,,	2,000	1	2½
⅛ in. Rolled Plate	1,000		10¼
⅛ in. Figured Rolled and Cathedral Standard Patterns, White Group 1	1,000		10¾
do. Group 2	1,000	1	2
⅛ in. Pinstripe, Hammerstripe, Reeded, Luminating and Spotlyte Group 3	1,000	1	2
3/16 in. Rolled Plate or Rough Cast	2,000	1	1
¼ in. do. do.	2,000	1	1¾
¼ in. Wired Cast, Hexagonal	2,000	1	4½
¼ in. Georgian Wired Cast	2,000	1	4½

THE BUILDER RATES OF WAGES

AS FROM APRIL 18, 1960. **(Every endeavour is made to ensure accuracy but we cannot be responsible for errors.)**

KEY TO SCHEDULE OF GRADE RATES.

Grade Classification	A	A1
Craftsmen	4/11½	4/11
Labourers	4/4	4/3½

Town	*Grade*
Aberavon	A
Aberdare	A
Abergavenny	A
Abingdon	A1
Accrington	A
Addlestone	A
Afan Valley	A
Aldeburgh	A1
Aldershot District	A1
Alfreton UD	A
Alnwick UD	A
Altrincham	A
Amble	A
Ambleside	A
Amersham	A
Ammanford	A
Andover	A1
Anglesey, Isle of	A
Ardingly	A1
Arundel	A1
Ascot	A1
Ashbourne RD	A1
Ashbourne UD	A1
Ashby-de-la-Zouch UD	A
Ashby Woulds UD	A
Ashford (Kent)	A1
Ashford (Middlesex)	A
Ashington UD	A
Ashtead	A
Ashton-under-Lyne	A
Aspatria and Brayton	A
Atherstone RD	A
Attleborough	A1
Axminster	A1
Aylesbury	A1
Aylsham	A1
Bagshot	A1
Bakewell UD	A1
Banbury	A1
Bangor	A
Barnard Castle UD	A
Barnoldswick UD	A
Barnsley CB	A
Barnstaple	A1
Barrow-in-Furness	A
Barrow-upon-Soar RD (part Thrussington)	A1
Barry	A
Basford RD (ex. Willough-by-on-the-Wolds A1)	A
Basingstoke	A1
Bath	A
Batley MB	A
Baxterley	A1
Beaconsfield District	A
Bearl	A
Beccles	A1
Bedale RD	A
Bedford	A
Bedlington	A
bedlingtonshire UD	A
Bedwas	A
Beeston & Stapleford UD	A
Belper UD	A
Belton	A
Berkhamsted	A
Berrington	A
Berwick Borough	A
Beverley MB	A
Bewdley MB	A
Bexhill-on-Sea	A1
Bideford	A1
Biggleswade	A1
Billericay	A
Billing	A
Billingham UD	A
Bilsthorpe	A
Bilston MB	A
Birchington	A1
Birkenhead	*
Birmingham CB	†A
Bishop Auckland UD	A
Bishop's Stortford	A
Bishops Castle MB	A1
Bispham	A
Blackburn	A
Blackpool	A
Blackwell RD	A
Blandford	A1
Blaydon UD	A
Blidworth	A
Blyth B.	A
Bodmin	A1
Bognor Regis	A1
Boldon UD	A
Bolsover UD	A
Bolton	A
Boston MB	A
Bourne End	A
Bournemouth District	A
Brackley MB	A1
Bracknell	A1
Bradford CB	A
Bradford-on-Avon	A1
Braintree	A1
Brandon & Byshottles UD	A
Brecon, Borough of	A1
Breconshire, County of	‡A1
Brent Knoll	A1
Brentwood	A
Bridgend	A
Bridlington MB	A
Bridlington RD	A
Bridgnorth MB	A
Bridgnorth RD	A1
Bridgwater	A1
Brierfield	A
Brighouse MB	A
Brighton & Hove	A
Bristol District	A
Broadstairs	A1
Bromsgrove UD	A
Broughton, Flint	A
Buckfastleigh	A1
Buckingham	A1
Buckley	A
Bungay	A1
Burnham-on-Crouch	A1
Burnham-on-Sea	A1
Burnley	A
Burton-on-Trent CB	A
Bury	A
Bury St. Edmunds	A1
Buxton	A
Byfleet	A1
Caernarvon	A
Caernarvonshire, Cnty. of	‡A
Calder Valley	A
Camberley District	A1
Cambridge	A
Cannock UD	A
Canterbury	A1
Cardiff	A
Cardiganshire, Cnty. of	‡A1
Carlisle	A

CURRENT RATES OF WAGES—Continued

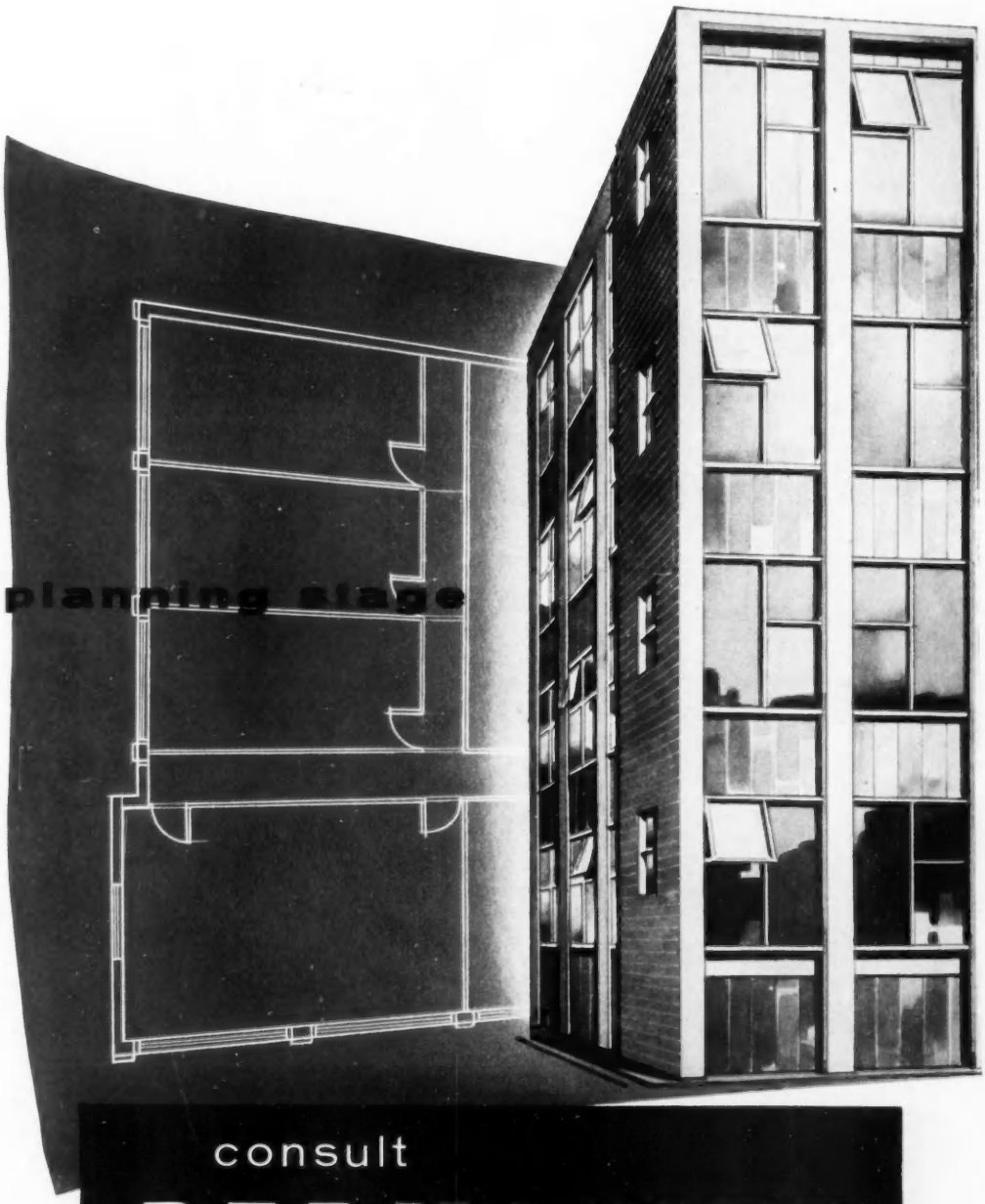
Town	Grade
Carlton UD	A
Carmarthen—Borough of	A
Carmarthenshire, Cnty. of	A
Carnforth	A
Castleford UD	A
Caterham	A
Chapel-en-le-Frith	A
Chard	A1
Charmy Down	A
Chatham District	A
Chatteris	A1
Cheadle (Staffs) RD	A
Chelmsford	A
Cheltenham	A
Chepstow	A
Chertsey	A
Chester	A
Chester-le-Street UD	A
Chesterfield MB	A
Chesterfield RD	A
Chichester	A1
Chipping Norton	A1
Chipping Sodbury	A1
Chippenham (inc. Chippenham Within and Hardenhuish)	A1
Chorley	A
Cirencester	A1
Clacton	A1
Clay Cross UD	A
Cleethorpes MB	A
Clevedon	A1
Cleveleys	A
Clitheroe	A
Coalville UD	A
Cobham (Surrey)	A
Colchester	A
Colne	A
Colwyn Bay	A
Congleton	A
Consett UD	A
Conway	A
Corby UD	A
Cornwall, County of	‡A1
Corsham District	A
Coventry CB	A
Cranbrook	A1
Cranleigh	A1
Cranwell Aerodrome Site	A
Crawley	A
Crewe	A
Crewkerne	A1
Cromer	A1
Crook and Willington UD	A
Crowborough	A1
Cuckfield	A1
Cwmbran	A
Dalton-in-Furness	A
Darlington CB	A
Dartmouth	A1
Darwen	A
Daventry MB	A
Deal	A1
Denbigh Town	A
Derby CB	A
Devizes	A1
Devon, County of	‡A1
Dewsbury CB	A
Didcot	A1
Diss	A1
Doncaster CB	A
Dorchester	A1
Dorking	A
Dorset, County of	A1
Dover	A1
Dovercourt	A
Driffield UD	A1
Drigg & Carleton	A
Droitwich MB	A
Dudley CB	A
Dunstable	A
Durham B	A
Eastbourne	A
E. Glam. & Mon. Val.	A
East Grinstead District	A1
East Kesteven RD	A1
East Retford MB	A
Eastwood (Notts) UD	A
Ebbw Vale & District	A
Edenbridge	A1
Ely	A1
Epping	A
Evesham MB	A1
Exeter	A
Exmouth	A1
Fakenham	A1
Falmouth	A1
Fareham	A
Faversham	A1
Felixstowe	A1
Filey UD	A
Fleetwood	A
Flint MB	A
Folkestone	A1
Frinton	A1
Frome	A1
Gainsborough UD	A
Gateshead CB	A
Gillingham (Dorset)	A1
Gillingham (Kent)	A
Glastonbury & Street	A1
Glossop	A
Gloucester	A
Gloucestershire, Cnty. of	‡A1
Godalming	A1
Goole, MB	A
Goole RD	A
Gosport	A
Grantham MB	A
Gravesend	A
Great Yarmouth	A
Grimsby CB	A
Grimsby RD (part)	A1
Guildford District	A1
Halesowen MB	A
Halifax CB	A
Halstead	A1
Haresfield	A1
Harlow	A
Harpenden	A
Harrogate MB	A
Hartlepool B	A
Harwell	A1
Harwich	A
Haslemere	A1
Hastings	A1
Hatfield (Herts)	A
Havant	A
Haywards Heath	A1
Heanor UD	A
Hemel Hempstead	A
Henley-on-Thames	A1
Hereford	A1
Herefordshire, Cnty. of	‡A1
Herne Bay	A1
Hertford	A
Hexham RD	A
Hexham UD	A
Heysham	A
Heywood	A
Higham Ferrers MB	A
High Wycombe	A
Hinckley UD	A
Hitchin	A
Hoddesdon	A
Holywell	A
Horley	A1
Horncastle UD	A1
Horsham	A1
Horwich	A
Huddersfield CB	A
Hull	A
Hunstanton	A1
Huntington (Staffs)	A
Ilfracombe	A1
Ilkeston MB	A
Ilkley UD	A
Ipswich	A
Isle of Sheppey	A1
Isle of Thanet	A1
Isle of Wight	A1
Jarrow B.	A
Keighley MB	A
Kendal	A
Kenilworth UD	A
Kettering MB	A
Keynsham	A
Kidderminster MB	A
Kingskerswell	A1
King's Lynn	A1
Kingsteignton	A1
Kirkham	A
Knaresborough UD	A
Knutsford	A
Lancaster	A
Leamington MB	A
Leatherhead	A
Leeds CB	A
Leek UD	A
Leicester CB	A
Leighton Buzzard	A1
Leiston	A1
Leominster	A1
Letchworth	A
Lewes	A1
Lichfield MB	A
Lincoln CB	A
Liskeard	A1
Littlehampton	A1
Liverpool	*
Llandudno	A
Llanelly (inc. Llanelly RD)	A
Llanfairechan	A
Llangollen	A
London	*
Long Eaton	A
Looe	A1
Loughborough MB	A
Louth MB	A1
Lowestoft	A
Loxton	A1
Ludlow MB	A1
Ludlow RD	A1
Luton	A
Lyme Regis	A1
Lyneham /Devon)	A1
Lytham	A
Macclesfield	A
Maidenhead	A
Maidstone	A
Maldon (Essex)	A1
Maltby UD	A
Malton UD	A1
Malvern UD	A
Manchester	A
Manningtree	A1
Mansfield MB	A
March	A1
Margate	A1
Market Harborough RD	A1
Market Harborough UD	A
Market Rasen UD	A1
Martock	A1
Maryport	A
Matlock UD	A
Melksham	A1
Melton Mowbray UD	A
Merionethshire	A
Merthyr	A
Mexborough UD	A
Middlesbrough CB	A
Middleton	A
Middlewich	A
Mildenhall	A1
Milford Haven UD	A1
Minehead	A1
Monmouth—Borough of	A
Monmouthshire	A
Morecambe	A
Moreton Valence	A1
Morley	A
Morpeth B	A
Morpeth RD	A
Mundesley	A1
Nantwich	A
Neath & Valley	A
Nelson	A
Newark MB	A
Newbury	A1
Newcastle-upon-Tyne CB	A
Newcastle-under-Lyme	A
New Forest District	A1
Newmarket	A1
Newport, Mon.	A
Newport Pagnell	A1
Newquay	A1
Newton Abbott	A1
Normanton UD	A
Northallerton District	A
Northallerton UD	A
Northampton CB	A
North Shields	A
North Walsham	A1
Northwich	A
Norton Radstock	A1
Norwich	A
Nottingham CB	A
Nuneaton MB	A
Oakham RD	A1
Oakham UD	A1
Okehampton	A1
Oldham	A
Ongar	A
Ormskirk	A
Ossett & Horbury	A
Oswestry	A
Oundle UD	A1
Oxford	A
Oxted	A1
Padstow	A1
Paignton	A1
Par	A1
Pembrokeshire	A
Penmaenmawr	A
Penrith UD	A
Penzance	A1
Peterborough, Soke of (Eastern Regional portion)	A1
Petersfield	A1
Pickering	A
Plymouth	A
Pontefract MB	A
Pontypool & District	A
Pontypridd District	A
Porthcawl	A
Portishead	A
Portland Bill	A1
Portsmouth	A
Port Talbot	A
Preston	A
Princetown	A1
Pudsey MB	A
Pulborough	A1
Radnorshire, County of	‡A1
Ramsgate	A1
Raunds UD	A
Rayleigh	A
Reading	A
Redcar B	A
Redditch UD	A
Redhill & Reigate	A
Rhondda Valley	A
Richmond B (Yorks.)	A
Ripon MB	A
Rochdale	A
Rochester	A
Ross-on-Wye	A1
Rossendale Valley	A
Rotherham CB	A
Royston	A1
Rugby MB	A
Rugeley UD	A1
Rushden UD	A
Saffron Walden	A1
St. Albans	A
St. Austell	A1
St. Helens	A
St. Neots	A1
Salisbury City	A1
Salisbury Plain	A1
Sandy	A1
Sawbridgeworth	A
Saxmundham	A1
Scarborough MB	A
Scunthorpe MB	A
Seaford & Newhaven	A1
Selby UD	A
Sevenoaks	A
Shaftesbury	A1
Sheerness	A1
Sheffield MB	A
Shepton Mallet	A1
Sherborne	A1
Shipley	A
Shoeburyness	A
Shoreham	A
Shrewsbury MB	A
Sirhowy Valleys	A
Sittingbourne	A1
Skegness UD	A1
Skipton UD	A
Sleaford UD	A
Slough, Windsor & Eton District	A
Smethwick CB	†A
Smettisham	A1
Solihull B	A
Somerset, County of	‡A1
Southampton & Eastleigh	A
Southend-on-Sea District	A
Southport	A
South Shields CB	A
Southwold	A1
Spalding UD	A1
Stafford MB	A
Staines	A
Stamford MB	A
Stantonwick	A
Stevenage	A
Stockport	A
Stockton RD	A
Stockton-on-Tees B	A
Stoke-on-Trent CB	A
Stoke Orchard	A1
Stourbridge MB	A
Stouport UD	A
Stowmarket	A1
Stratford-on-Avon MB	A
Stroud (RD Area)	A1
Sunderland CB	A
Sunningdale	A1
Sutton Coldfield MB	A
Swadlincote UD	A
Swaffham	A1
Swanage District	A1
Swansea	A
Swindon District	A
Swinton UD	A
Tamworth MB	A
Taunton	A1
Tavistock	A1
Tenterden	A1
Teignmouth	A1
Tewkesbury	A1
Thames Haven	A
Thetford	A1
Thirsk RD	A
Thorpe Bay	A
Thurrock UDC (including Tilbury, Grays and the area north to Billericay)	A
Todmorden MB	A
Tonbridge	A1
Torquay	A1
Totnes	A1
Tring	A1
Trowbridge	A1
Truro	A1
Tunbridge Wells	A1
Tynemouth CB	A
Ulverston	A
Uppington (Salop)	A1
Uttoxeter RD	A1
Uttoxeter UD	A1
Wakefield CB	A
Wakefield RD	A
Walsall CB	A
Wallsend B	A
Walsden	A
Walton-on-Naze	A1
Ware	A
Warminster	A1
Warrington	A
Warwick MB	A
Wednesbury MB	A
Wellingborough UD	A
Wellington UD	A
Wellington (Somerset)	A1
Wells (Norfolk)	A1
Wells (Somerset)	A1
Welwyn	A
Welwyn Garden City	A
West Bromwich CB	A
Westbury	A1
Westcliff-on-Sea	A
Westerham	A1
West Hartlepool CB	A
Westmorland	A
Weston-super-Mare	A1
Weybridge	A
Weymouth (incl. Portland Bill, excl. Portland Stoneyards)	A1
Whitby UD	A1
Whitby RD	A1
Whitehaven	A
Whitley & Monkseaton UD	A
Whitstable & District	A1
Wickford	A
Widnes	A
Wigan	A
Wigton	A
Wilmslow	A
Wiltshire, County of	‡A1
Wimborne	A1
Wincanton	A1
Winchester	A1
Windermere	A
Wisbech	A1
Witham	A1
Withernsea UD	A
Woking	A1
Wokingham	A1
Wolverhampton CB	A
Wolverton District	A1
Woodbridge	A1
Woodhall Spa UD	A1
Woodstock	A1
Worcester CB	A
Workington	A
Worksop MB	A
Worthing	A1
Wrexham (incl. Cefn)	A
Wroughton	A1
Wylam	A
Wymondham	A1
Yate	A1
Yeovil Borough	A1
York CB	A
Ystalyfera	A

* For Birkenhead, Liverpool and London the rates are :—Craftsmen, 5s. 1d. ; Labourers, 4s. 5½d. In the case of London the rate beyond the 12-mile radius is : Craftsmen, 5s. 0½d. ; Labourers, 4s. 5d. † Plus 4d. per working day. ‡ This is the County rate and applies except where higher grades are stated.

NOTE.—Carpenters and Joiners providing own tools when employed in establishments operating under the Supplementary Rules for Woodworking Factories and Shops receive 2d. per day ; when employed on other building industry work, 4d. per day.

WOMEN'S RATES.—In all districts throughout the country the rate of wages for women engaged in craft processes is 4s. 1d. per hour. Women engaged on work other than craft processes, 3s. 9d. per hour.

For Building Trade Wages in Scotland, see page 348



At the planning stage

consult

PERMANITE

for BUILT-UP FELT ROOFING • ASPHALT ROOFING FLOORING AND TANKING

PERMANITE LTD LONDON ADVance 4477 (20 lines) BIRMINGHAM BIRchfields 5041 MANCHESTER BLAckfriars 9469 PORTSMOUTH Havant 2116

PERMANITE also manufacture Bituminous Roofing and Dampcourses. Specify PERMANITE

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TECHNICAL REVIEW

This Review of plant, equipment and materials—in most cases new or with new features—is intended to give brief details only of the products mentioned. Notices are based on data supplied by the manufacturers. Additional information and prices can be obtained either direct or by using the prepaid Readers' Service form which appears on page 138 of this issue. The form can be used for more than one inquiry.

1. Concrete

A modified grade of POLYESTER RESIN CEMENT has been developed specifically for repairing and fixing pre-cast concrete. It is a cold-setting cement, supplied in two parts—cement powder and liquid mixture—that can be used in the workshop or under site conditions, and requires no special experience in the use of resinous cements. It has good weathering properties, can be employed in temperatures up to 280°F and is not affected by excessive humidity during the curing cycle. Tests have shown that the bond obtained between two parts of pre-cast concrete under repair has a greater modulus of rupture than the concrete itself.
Corrosion Technical Services, Ltd., Sunley's Island, Great West-rd., Brentford, Middx.

2. Doors

A new DRAUGHT EXCLUDER for fixing to the base of the door consists of a strip of thin, white plastic to which is permanently attached a strip of resilient felt. This makes the seal against the floor or carpet. Because of the softness of the felt and the flexibility of the plastic carrier, the excluder is easily adjusted for wide or narrow gaps and uneven floors. As only the felt touches the floor there can be no damage to polished floors, linos, or carpets. The excluder is light and easily fixed.
Sealdraught Ltd., Chandos House, Buckingham Gate, SW1

3. Heating

An attractively designed INFRA-RED HEATER has been evolved in which more than 90 per cent of radiant energy is thrown forward. The heater, which is over 2 ft. in length and weighs 5½ lb., is fixed to the wall near to ceiling height. With infra-red radiation, the objects in the room are first warmed before the air temperature rises, although it is a matter of minutes for the whole room to be heated. The element, the ends of which are protected with ceramic insulators, has been specially designed to give a long life.
Thermodare (Great Britain), 94/98 Petty France, London, SW1.

4. Miscellaneous

HODS, for bricks or plaster, are now being constructed from high-strength aluminium alloy. They are specially designed to resist hard wear and rough handling and will not rust or deteriorate over long periods when exposed to bad weather conditions. One would expect them to have a long life.
Non-Corrosive Metal Products Ltd., Horton-road, Yiewsley, Middlesex.

5. Sign-Writing

A simplified form of SIGN-WRITING is offered by a lettering transfer method which uses a comprehensive range of type faces. Once the preferred type has been selected the letters are cut from a sheet. Each individual letter is then placed face down on a small frame, covered with lightly stretched silk. The paper backing is moistened with a dampened paint brush and slid off, leaving the letter itself on the silk. The frame is then reversed, the letter placed over the required position and pressed lightly into place, where it is held by an adhesive, and the frame removed.

The sign need not necessarily be applied letter by letter as logotype legends can be supplied to order. The letters will adhere to any normal building material and no special preparation of the surface is needed.
Letraset Ltd., Plough-place, Holborn, EC4.

6. Matting

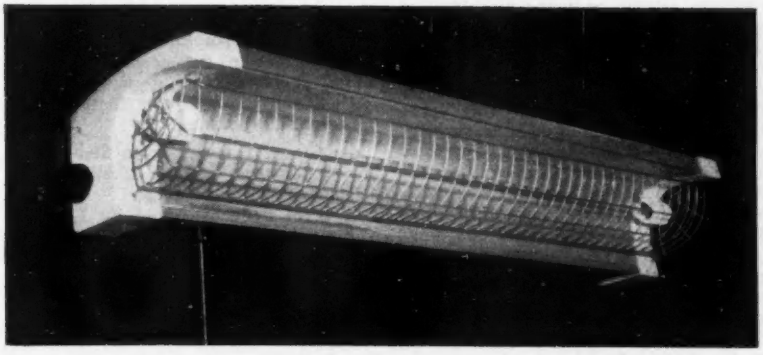
The new KENSINGTON BOROUGH LIBRARY, recently opened by HM Queen Elizabeth the Queen Mother, is the latest and almost certainly the largest public lending library in Britain. It has an elaborate reference system, extensive specialised sections and reading rooms and vast senior and junior fiction departments.

As impressive as its content is the building itself. A red-brick and white-concrete structure, it contains plenty of window space, allows ample room to manœuvre between the book shelves, and utilises many devices to ensure bright, pleasant and clean surroundings for the public, including the latest Scandinavian-type doormats, designed to reduce the ingress of dirt into the library.
Cimex Ltd., Cray-avenue, Orpington, Kent.

The entrance to the new library showing the rubber grille doormat

7. Packaging

A one-gallon CONTAINER is now being marketed which is blow-moulded in Rigidex high density polyethylene. It is square in section, measuring 5⅞ in. by 13¾ in. high and weighs only a few ounces. As might be expected from the material used, the container has good resistance to chemicals, oils and greases and to many solvents. It cannot corrode and imparts no taste or odour. The 1½ in. neck is an efficient pouring spout and the container is sealed with a urea cap incorporating a liquid-tight polyethylene gasket. There are no seams and breakage is thought to be virtually impossible.
Cascelloid, Abbey-lane, Leicester.



The Thermodare infra-red heater which has a 3-micron wave-length

Technical Publication

THERMOPLASTIC TILES ON FLOOR HEATING SYSTEMS is the subject of a little booklet by F. L. Brady, MSc, ARIC. Mr. Brady, formerly of the Building Research Station and now Technical Director of the Marley Group, deals with thermal resistance and the value of a flooring having little resistance to heat flow, as well as many other matters.

The booklet is obtainable, free of charge, from The Marley Tile Co. Ltd., Sevenoaks, Kent.

Trade News

New Look for Magazine

THE GYPSUM JOURNAL, the quarterly magazine published by the Gypsum Plasterboard Development Association, is acquiring a new look. As well as a colour change for the cover, more scope is being given to layout and illustrations. Also, the articles are to cover a wider range of general interest in addition to the technical features, data sheets and diagrams which have in the past proved valuable to users of gypsum plasterboard.

Copper Tube Fittings

A NEW SET of Stock Bin Cards for their copper tube fittings has recently been issued by Kings Langley Engineering Co. Ltd., of Kings Langley, Herts. These cards are available on application to the company.

Technical Advisory Division

RICHARDS TILES LTD. have formed a Technical Advisory Division staffed by ceramic engineers and chemists to offer advice on any problems arising on the installation, or use of, ceramic tiles.

Change of Name

THE NAME of Elephant Oil Mills (Private) Ltd., Bombay, has been changed to Blundell Eomite Paints Private Ltd., with effect from July 11, 1960. This is a subsidiary company of paint manufacturers Blundell, Spence & Co. Ltd.

New Ghana Furnishing Centre

THE NEW FURNISHING CENTRE recently opened in Accra is the result of a joint enterprise by three firms—I.D.C. Furniture and Joinery Ltd., Accra, Catesbys Design Group, and Catesbys Contracts & Export Ltd., London. The Centre will exhibit the latest in furniture, curtaining, linoleum, carpets, glassware, cutlery, kitchen equipment and china. An expert advisory service is also provided.

Fire Destroys 3-storey Block

DUNCAN TUCKER (TOTTENHAM), LTD., manufacturers of prefabricated kitchen units, wooden window and door frames, etc., suffered a disastrous fire on Monday, July 18, that destroyed a three-storey block at their Pymore Mill, Bridport, Dorset. The loss is estimated at between £15,000 and £20,000.

Despite this setback to their newly reorganised production programme, their joinery section is unaffected and every effort is being made to utilise this in helping to meet existing orders for kitchen units.

New Building Company

ROBINSON BUILDING TECHNIQUES, LTD. is the style of a new company formed by E. S. & A. Robinson (Holdings), Ltd., to market a wide range of building materials manufactured by companies within the group. The head office will be at Redcliffe-street, Bristol.

Initially, the products will comprise various laminated building papers and other materials for use in concrete works, road construction and civil engineering generally; aluminium and other reflective foils for thermal insulation of buildings; and expendable cardboard formers for forming ducts and voids in concrete.

Rise in Paint Exports

WHILST ALL THE figures of British paint exports for the first six months of 1960 are not yet available, one of the leading exporters in the trade, Jenson & Nicholson, Ltd., of Stratford, London, E15, makers of Robbialac Coloriser paints, announce that their exports have risen by nearly twenty per cent during the first half of 1960 as against the same period last year—this despite the fact that the Jenson & Nicholson Group factories in Australia, Canada, India, Portugal, South Africa, East Africa and Pakistan all report increased activities in their respective fields.

The increase is widely spread over the five continents, and it is interesting to note that it has been specially marked in Asia, in spite of social unrest and unsettled economic conditions.

OVERSEAS BUILDING

From Our Own Correspondents

ARGENTINA.—The Highways Board of the Province of Buenos Aires have called for tenders for contracting the study, planning and building of a road connecting Nueve de Julio, General Viamonte, and Junin, at an estimated cost of 500m. pesos.

AUSTRALIA.—A Brisbane real estate firm plans to subdivide 1,000 acres of bush and farmland in the Redland shire for development as a 4,500 block satellite town. The site is on the Old Cleveland-road, about 18 miles from Brisbane. A company spokesman—the firm is a subsidiary of A. F. Grant Pty. Ltd.—stated that it was hoped development would start within a year but that it was expected the entire scheme may take several years to complete. Provision will be made for schools, shops, churches, parks and light industry.

AUSTRALIA (VICTORIA).—The Vacuum Oil Co. is building a petrochemical plant at Altona, at a cost of £23m.

AUSTRALIA.—Australian Paper Manufacturers will build a paper mill costing up to £A3,750,000 near Perth, Western Australia. The State Minister for Industrial Development, Mr. Court, said the terms of contract had still to be ratified by the State Parliament. He expected the mill to be in production by the end of 1966. It would be built on 400 acres of land not far from the Kwinina oil refinery. . . . A Danish construction firm, Christiani and Neilson, has won a contract to build a big diversion dam costing £A2,900,000 in far north-western Australia. It will be built across the Ord River and will be the fourth stage in the development of the Ord River irrigation and power scheme designed to irrigate 16,000 acres. A pilot farm of 2,000 acres is being established in the Ord River region. . . . The Victorian State Government is considering the establishment of three or four new small universities, the Premier, Mr. Henry Bolte, said recently at Geelong. A university, called the Monash, is to be set up at Melbourne.

BRITISH EAST AFRICA.—The preliminary design, together with draft contract documents has been prepared by the consulting engineers to the Uganda Electricity Board for a 180 mW hydro-electric scheme at Bujagali, 4½ miles downstream from the Owen Falls project at Jinja. A preliminary description, suitable for issue to prospective tenderers, has also been prepared, but an official decision, as to whether the scheme shall be proceeded with, has yet to be taken. . . . The Tanganyika Legislative Council has approved the construction of a £2.2m. rail link between the Central and Tanga lines. Work is expected to start later this year. The construction of a line from Soroti to Lira in Uganda has been approved by Uganda Legislative Council. The total cost is estimated at £670,000 of which £441,000 will be lent to the railway authorities by Uganda Government. . . . Plans have been approved for a £500,000 'auto-silo' or robot car-park to be built in the centre of Nairobi. The 16-storey block will be a separate unit circled by a ten-storey block of 200 offices, shops, etc. The scheme is backed by Italian interests.

CANADA (ALBERTA).—The Firestone Tyre Co. has announced the construction of a $2.5m. plant in Calgary. . . . Westalta Products Ltd. are seeking permits to construct a $42m. gas gathering system and a 110-mile pipeline from Alberta to Chicago, USA. The British American Oil Co. are considering a similar project.

CANADA (BRITISH COLUMBIA). — The Canadian Bechtel Co. is to construct the Dow Chemical new plant near Vancouver. Completion is scheduled for 1961. . . . The Westcoast Transmission Co. Ltd. has announced plans to construct a new 30 in. pipeline, to run parallel to their existing structure—from the Peace River area to the US border, a distance of 700 miles. It is also intended to build a new line extension to run 250 miles northwards. . . . Vancouver Specialty Boards Ltd. is to construct a new plant in North Surrey.

CANADA (NEWFOUNDLAND).—Work has now started on the construction of a $30m. hydro-electric project at Twin Falls, Labrador, for the British Newfoundland Corporation.

CANADA (ONTARIO).—Cities Service Ltd. are to construct a $1m. addition to its $27m. refinery at Trafalgar. . . . A $1m. mill is to be constructed for Standard Tubes at Woodstock. . . . The Rosedale Golf Club is to construct a $600,000 new club house.

CANADA (QUEBEC).—A new underpass, to cost approximately $1m., is to be constructed at the CPR tracks at West Broadway-avenue, in the Notre Dame de Grace section of Montreal. . . . A $2m.

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We can quickly supply Redwood Weatherboard Site Huts in standard sizes, or to your own specification, as already used by many leading contractors.

Photograph by courtesy of Alexander Finley & Co. Ltd., Motherwell.

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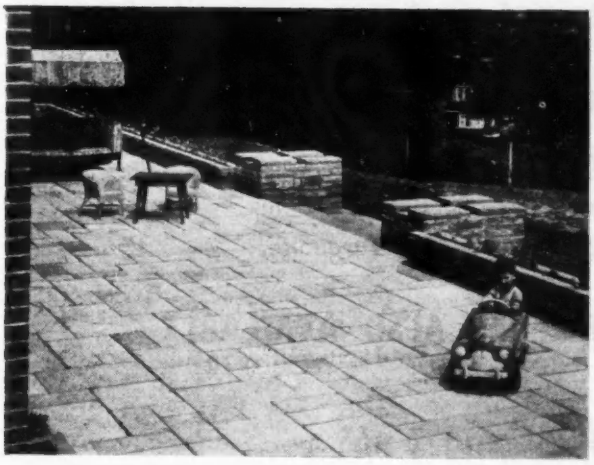

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Black, White, Ivory No.5, Primrose No.5, Kingcup Yellow, Green No.5, Red, Blue No.5, Turquoise, Pearl Grey, Corallin Pink, Pink.
Note two new colours: Kingcup Yellow and Turquoise.

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plant, in the Baie St. Paul area, is planned by the Continental Titanium Corporation. . . . Projects under consideration include: a $2m. hospital for Seven Islands; a $2m. hospital for Amqui; $2m. for Maniwakí; a $2m. psychiatric centre for Montreal; a $4m. hospital for Baie St. Paul; and an institute of technology for Three Rivers to cost $6m.

DOMINICAN REPUBLIC.—Road and bridge building is to be speeded up with the immediate spending of $600,000 on several new extensions and 10 road bridges. Work on public buildings and offices costing $398,000 is also to be started.

KENYA.—A new £1m. factory is to be built at Mombasa, by a Canadian company, Aluminium Ltd. A small plant is to be built at Dar es Salaam, in Tanganyika. Work is to begin soon on the ten-acre site at Mombasa, next to the new oil refinery.

MEXICO.—Various competing plans have been drawn up for new steel works to enlarge production capacity. The first of these is for an extension of the existing steel works at Monterrey; the second is for a small plant near Durango; the third and most elaborate, is for a plant at Las Truchas in the State of Michoacan; and the fourth is for a plant near Manzanillo itself. It is not yet certain which if any of these will have priority. The recent decision of the Federal Electricity Commission to accept a US $70m. loan from a French banking group for the construction of a dam and hydro-electric system generating up to 400 mW at El Infiernillo in Michoacan, would suggest that the Federal Government are at least thinking of setting up the new steel plant in western Mexico. The site of the proposed Manzanillo steel plant would be a mile or two from the port at the village of Tapeiztles. The estimated cost of the plant is about £10m.; to this should be added the cost of building a road to the principal deposits at Minatitlan, about 45 miles distant. Whichever scheme is adopted should bring very considerable opportunities for British firms. . . . There are plans in hand for the reconstruction of the port of Manzanillo. The plans show that the work falls into three phases: (a) to finish clearing up the mess left by the recent hurricane and to reconstruct and enlarge the principal breakwater; (b) to dig out a dock to a depth of 30 ft. for big vessels in the strip of land which at present separates the sea and the salt-water lagoon; (c) to extend this dock into the lagoon, wall off that part of the lagoon closest to the town and dredge a deepwater dock in the lagoon next to the railway line that runs by the edge of the sea. The cost of phase (b) is estimated at about £1,100,000 and the cost of phase (c) at just over £10m. No contracts have yet been placed for this work nor any definite arrangements made for carrying it out. Work, however, will not start until a decision has been taken on the construction of the steel works.

NEW ZEALAND.—Plans for the construction of a 16-storey office block in Queen-street, Auckland, at a cost of £425,000, have been announced by the Norwich Union Life Insurance Society.

NIGERIA (EASTERN).—A new £1m. power station to supply electricity to Port Harcourt and several other towns is to be built near Okolima village near Afam, and will be operated by natural gas from the Afam oilfields. It is expected that the power station will go into operation in July, 1962.

SOUTH AFRICA.—A civic centre for the south-western Native townships is being designed by the town-planning branch of the City Engineer's Department. A preliminary scheme for the centre will include a civic square to accommodate government and municipal offices; a shopping centre; a community centre; and an entertainment centre, with hotels, cinema and restaurants. The initial scheme will cover 48 acres. There are proposals for an educational centre, a church centre, and a hospital centre. The buildings will be of modern design, but will be given a native character by Bantu designs in the panelling and paving, and sculpture depicting native life. When complete the centre will cover a total area of 371 acres.

SOUTH AFRICA (ORANGE FREE STATE).—The hydro-electric scheme on the Orange River forms part of a £100m. project which will start before 1963. Planned by Dr. H. Olivier, the engineer in charge at Kariba, the hydro-electric scheme is estimated to cost £47m.

SIERRA LEONE.—Barclays Bank DCO reports that the Colonial Development Corporation have undertaken to provide £2m. by way of loans to the Sierra Leone Government for the Guma Valley project. The Commonwealth Development Finance Company are willing to loan the Government £400,000 and the rest of the £3½m. which is needed to finance the whole project will be provided by the Government. It is estimated that the time required to complete the project is four years and the consulting engineers, Messrs. Howard Humphreys and Sons, Victoria Station House, SW1, have been asked to advertise for tenders.

UGANDA.—Construction is expected to commence next year of new premises for the Kampala branch of the Standard Bank of South Africa.

Private Building in Nairobi

PRIVATE BUILDING plans worth £¾m. were submitted to Nairobi City Council for approval during July. The monthly average so far this year has been £628,230 compared with £607,682 for the same period in 1959.

Domestic Building in Australia

THE NUMBER of new dwellings started by builders in Australia in the June quarter was a record for a three-months' period. Figures released by the Bureau of Statistics show that work started on more than 4,200 new flats, nearly one-third more than the previous quarter's record figure of 2,900 flats. The number of new houses started was more than 20,000, the highest since the building boom of 1951.

Canadian Design

A THREE-DAY 'NATIONAL DESIGN CONGRESS,' organised by the National Industrial Design Council, is to be held at Stratford, Ontario, in September, 1961. Its purpose is to stimulate design at all levels of industry in Canada and to strengthen the position of Canadian manufactured exports by improving the quality of their design. Architects, town planners, designers, manufacturers and retailers will be invited to attend and to participate in panel discussions. An exhibition of Canadian-designed industrial and consumer goods will be arranged.

Overseas Contract Open

NEW ZEALAND.—The Auckland City Council will shortly invite tenders for the erection of a structural steel building in Auckland. The building will have 18-storeys above and three floors below ground level, with a total area of 154,000 sq. ft. Completion is required in 2½ years. A brief description of the proposed building and a photograph of the model may be obtained on application to the Executive Secretary, New Zealand House, 415 Strand, London, WC2. Prospective tenderers are invited to state in writing and supply proof, if required, of their experience and their capacity to handle this project. These particulars should be sent to the Town Clerk, Town Hall, Private Bag, GPO, Auckland, New Zealand, to be received not later than September 5.

Grants for Colonial Territories

£4¾m. for Development and Research

A GRANT of £330,000 was made under Colonial Development and Welfare Acts in June towards the cost of sea defence works in BRITISH GUIANA. It was one of 91 approved grants and loans which made £4,754,720 available for schemes to benefit Britain's oversea territories. The grants for research totalled £64,258.

British Guiana received a total of £477,942 in six grants, the other five included £83,333 for primary school buildings and equipment. Grants made for educational facilities totalled £1,624,845. They included £512,560 for the development of African education in NORTHERN RHODESIA, two grants totalling £344,750 for extensions to two halls of residence at the University College of RHODESIA AND NYASALAND, £200,000 for the construction and extension of primary and intermediate schools in ADEN, and £257,957 for the development of African education in NYASALAND.

Grants and loans for road and railway developments totalled £967,472, including grants of £245,000 for road improvement work in NORTH BORNEO; £142,000 for development of feeder roads in the SOUTHERN CAMEROONS; £126,130 for major road improvements in MALTA, and £123,098 for the continuation of the construction of the eastern coast road from Rosalie to La Plaine in DOMINICA.

Among the grants totalling £491,175 for medical and health services and medical research was one of £145,946 for the construction and equipping of an out-patients and operating theatre block for the Colonial War Memorial Hospital at Suva in FIJI.

SCOTTISH BUILDER

Greenock Development Plan Approved

GREENOCK Town Council has agreed in principle to a £5 million plan by Murrayfield Real Estate Co. Ltd. for the redevelopment of the town centre. The scheme, which requires Secretary of State approval, covers 150 shops of varying type and 800 dwellings in multi-storey blocks. The scheme involves compulsory purchase of properties and lease of the ground to the developers for 99 years.

While agreement has been given in principle, the acceptance is subject to the detailed consideration and approval of the plan including questions of rent and tenure of property by shopkeepers and others. The scheme was approved by the Town Council with only four members voting for 'continued interest' as against acceptance in principle.

£18m. Flats Project for Edinburgh

DURING THE next few years 9,000 flats, costing about £18m., are to be built in Edinburgh. These will replace 4,000 prefabs which still stand, although it may be some years before all are replaced by permanent homes. There are 16 sites in the city on which there are prefabs and of these 14 are owned by the Corporation. On these 14 sites flats are to be put up. Edinburgh Corporation's Housing Committee have invited James Miller and Ptnrs., Ltd., to redevelop a site at Longstone, and have also asked George Wimpey and Co., Ltd., to participate—mainly in the development of a site at Muirhouse. A fuller account of this project will be found on p. 329.

New Buildings

GLASGOW CORPORATION.—Housing C has agreed to ask the firms interested in the Drumchapel shopping centre to submit plans for the proposed Castlemilk centre. The firms are: Ravenseft Properties Ltd., S. H. Chippendale and Co. Ltd., Scottish Metropolitan Property Co. Ltd. and Scottish Site Improvements Ltd. Plans are now awaited.

GLASGOW CORPORATION.—The corporation has agreed to a list of possible tenderers for the Area C part of the Hutchesontown/part Gorbals scheme which involves 400 houses in two 20-storey blocks. Firms asked to tender are Blackburn (Dumbarton) Ltd.; Gilbert-Ash Ltd.; Holland & Hannen and Cubitts (Scotland) Ltd.; John Laing and Son Ltd.; Leslie and Co. Ltd.; Melville, Dundas and Whitson Ltd.; Tersons Ltd.; the Taylor-Woodrow Group; Trollope and Colls Ltd. The Housing and Works Department of Glasgow Corporation has also been asked to submit a tender for direct labour construction of the Area.

GLASGOW CORPORATION. — Housing and Works Department has been granted the contract for the Golfhill-drive scheme at a figure of £86,791, being £1,601 for each of the 400 houses.

GLASGOW.—Among projects approved by the Corporation are: J. and R. Snodgrass Ltd., to erect bulk storage and extension at 10 Anderston-quay, Glasgow; Beechwood Building Co. Ltd. to erect 13 two-storey blocks at Sandhaven-rd./Crovie-rd.; Glasgow Esk Engineering Co. Ltd. to build a light engineering workshop at Rosebery Park, Polmadie; James Robertson (Factors) Ltd. to convert large bakery block at St. George's-rd. to warehouse purposes; F. W. Woolworth and Co. Ltd. to erect a new store at 21/29 Dalmarnock-rd.; Waterloo Property Co. Ltd. to build five shops and a showroom at 31-43 Dalmarnock-rd.; J. P. Sim and Co. Ltd. to build a single-storey factory and offices at Burnfield-rd., Thornliebank; Mastercraft Tailoring Co. to convert a cinema in St. James-st., Bridgeton, to clothing factory use; Glasgow University to build a naval architecture test tank building at Acre-rd.; N. W. R. A. Peacock and Co. Ltd. to build food factory at Thornliebank. At Finlas-st., Glasgow, John S. Burns and Sons to build a small printing factory and Avon Rubber Co. a tyre depot.

WEST LOTHIAN.—The British Motor Corporation have announced the award of a £500,000 contract to Robert M. Douglas, Ltd., George-rd., Birmingham, for the second stage of their new factory at Bathgate, West Lothian, Scotland. The factory is expected to be in production by next year. Harry W. Weedon & Partners, Birmingham, are the architects.

SCOTTISH BUILDING TRADE WAGES

FOLLOWING are rates of wages authorised by the Scottish National Joint Council as from April 18, 1960. They apply to the whole of Scotland, including the islands of Orkney, Shetland, etc.

Grade A: Craftsmen, 4s. 11½d.; Labourers, 4s. 4d.

For apprentices, the rates are:

Year	Percentage of Craftsman's rate	For week of 44 hours s. d.
1st	25	54 6½
2nd	33½	72 9
3rd	50	109 1
4th	66½	145 6
5th	75	163 7½

For female labour, the rates are:

	s. d.
Operatives on craft operations (at end of probationary period)	4 4
Operatives on labouring operations (at end of probationary period) ...	3 10

THE BUILDER CONSTRUCTION NEWS

Full details of Public Appointments open will be found in the Advertisement pages of this and previous issues.

CONTRACTS OPEN

For some contracts still open but not included in this list, see previous issues. Those preceded by the symbol (A) are advertised in this number. The latest date for the receipt of tenders or applications appears above each paragraph. The symbol (R) preceding each entry indicates that applications must be received by this date.

BUILDING

AUGUST 22

(AR) BUCKS. WATER BD.—Proposed office extensions and new workshops at Aylesbury. Raymond White & Ridley, architects, 4 Temple-sq., Aylesbury. Dep. £5. Tenders by Sept. 26.

AUGUST 26

(AR) TAMAR BRIDGE JOINT COM.—Erection of administrative buildings in connection with Tamar Bridge scheme. Mott, Hay & Anderson, 9 Iddesleigh-hse., Caxton-st., Westminster, SW1.

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ROYAL

RMML

AUGUST 27

(AR) ESSEX CC AND COURT OF QUARTER SESSIONS.—Firm price tenders for:—(a) One police house at Collier Row-la., Romford, and (b) one police house and office at Felsted. County A. (separate applications).

AUGUST 29

(AR) BEDFORDSHIRE EC.—Fixed price tenders for single-storey extension to the kitchen and dining accommodation at Bedford College of Physical Education, Lansdowne-rd. County A.

(AR) HUNTINGDONSHIRE CC.—Fixed price tenders for a proposed three-bay fire station at Ramsey. County A.

(AR) WEST RIDING OF YORKSHIRE CC.—Structural alterations and improvements to the house block at County Welfare Establishment, Thornton View, Clayton. Divisional A. Tenders by Sept. 12.

AUGUST 30

(A) CARDIFF CITY C.—Fixed price tenders for new bicycle storage and playing field equipment store at Howardian High sch. for boys, Colchester-ave. City A. Dep. £2 2s.

(AR) NORTHAMPTONSHIRE CC. — (a) Erection, or (b) electrical installation, of ambulance depot and civil defence training centre at Wellingborough Fire Station. County A.

AUGUST 31

(AR) DURHAM CC.—(a) Alterations at Cambridge-hse. hostel, Barnard Castle. (b) Erection of standard police houses, garages and stores at Greenfield estate, Swalwell. County A.

SEPTEMBER 1

TIPPERARY CC.—Erection of a fire station at Carrick-on-Suir. Documents from Secretary, County Council Offices, Clonmel. Dep. £10.

SEPTEMBER 2

(AR) EAST SUFFOLK CC.—Firm price tenders for alterations and extensions to Cookley and Walpole VCP sch. County A. Tenders by Oct. 7.

(AR) SHEFFIELD REGIONAL HOSPITAL BD.—(a) Development of children's group (phase 2) at Balderton Hospital, Newark. (b) Development at Aston Hall Hospital, Aston-on-Trent, Derbys. E. F. Wilson, architect, Fulwood-hse., Old Fulwood-rd., Sheffield.

(A) WORSLEY UDC.—Fixed price tenders for:—(a) Two-storey garage block and store; (b) single-storey repair shop; (c) storage buildings; (d) alterations to existing buildings as extensions to Town's Yard, Chesnut-ave., Walkden. E&S. Dep. £2 2s.

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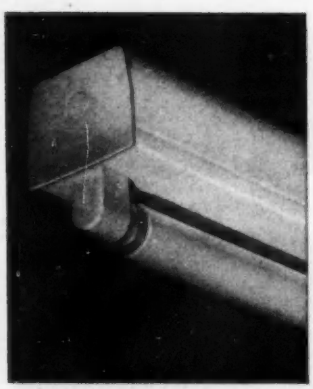

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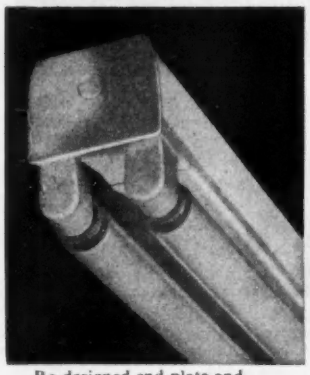

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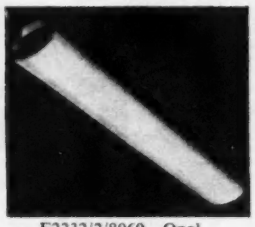
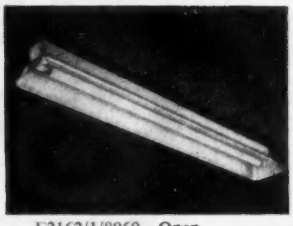


F2232/2/8060—Opal 'Perspex' Diffuser.



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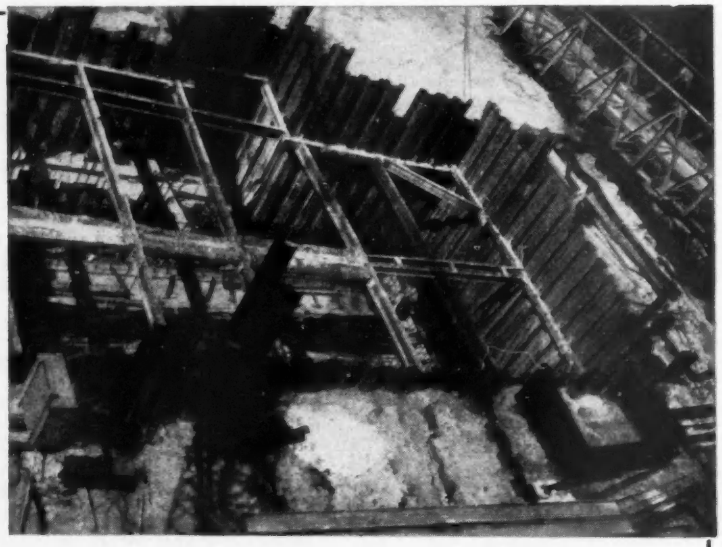

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SEPTEMBER 6

(R) NORTHERN IRELAND HOUSING TRUST.—Construction of:— (a) 258 dwellings and 83 garages, with ancillary and engineering works, and (b) 146 dwellings and 51 garages, with ancillary and engineering works, at Andersonstown. Offices of Trust, 12 Hope-st., Belfast. Dep. £3. (Separate applications.)

(AR) SOUTHAMPTON CBC. — Erection of:—(a) 20 houses at Surrey House; (b) 17 houses at Bitterne-rd./Bath-rd.; (c) three blocks of four-storey flats (14 flats per block) at Bitterne-rd./Bath-rd. Boro' A.

(AR) SOUTHEND-ON-SEA CBC.—Extension to dining room at Southend High sch. for girls, Thorpe Bay, Essex. Boro' A. Dep. £2 2s.

SEPTEMBER 9

(AR) HAMPSHIRE CC.—(a) Erection of two-storey practical blocks and extensions to the kitchens at following schools: Petersfield county sec. sch.; Bordon Mill Chase county sec. sch.; Farnborough Fernhill county sec. sch. (b) Extension and alterations, including new two-storey practical block, assembly hall, kitchen and two-storey classroom wing at North End county sec. sch., Eastleigh. Jackson & Greenen, architects, Hinton-bldgs., Hinton-rd., Bournemouth. Dep. £2 2s. (each contract). Tenders by Oct. 12

(AR) SOUTHAMPTON CBC.—Erection of 14 shops and 26 dwellings, with garages, etc., at Thornhill estate. Boro' A.

SEPTEMBER 12

(A) CATERHAM & WARLINGHAM UDC.—Erection of six flats at Godstone-rd., Whyteleafe. E&S.

(A) NORTHFLEET UDC.—Erection of 12 houses at Painters Ash estate, Northfleet, Kent. E&S. Dep. £2 2s.

(A) WIGAN CBC.—Fixed price tenders for 27 dwellings at Drummond-sq. site, Laithwaite housing estate. Boro' & Water E. Dep. £2 2s.

SEPTEMBER 13

(A) CARDIFF CITY C.—Fixed price tenders for 219 garages (eight contracts). City A. Dep. £2 2s. (each contract).

(A) CARDIFF CITY C.—Fixed price tenders for:—(a) 105 dwellings at Rumney; (b) 39 at Butetown; (c) 50 at Ely North. City A. Dep. £2 2s. (each contract).

(A) CARDIFF CITY C.—Fixed price tenders for:—(a) 46 dwellings at Shaw-close, Llanrumney; (b) two at Hazlett-close. Llanrumney; (c) 22 at Grangetown. City A. Dep. £2 2s. (each contract).

SEPTEMBER 14

(A) HUNTINGDON RDC.—Fixed price tenders for 12 bungalows and eight flats, with associated roadworks, at Brampton. S. Dep. £2 2s.

SEPTEMBER 16

(A) MALVERN UDC.—Fixed price tenders for extensions and alterations to Priory Park swimming pool. S & Water E. Dep. £5 5s.

(A) NORTH RIDING EC.—Erection of second instalment of county prim. sch. at Huntington, nr. York. County A.

(A) STAINES UDC.—Fixed price tenders for 36 dwellings and 44 garages at Town-la., Stanwell, Middx. C. Dep. £2 2s.

(A) WEST BROMWICH CBC.—Erection of 132 maisonettes in blocks of four-storeys. Boro' E&S.

SEPTEMBER 17

(A) CARMARTHENSHIRE & CARDIGANSHIRE JOINT POLICE & FIRE AUTH'S.—Erection of nine pairs of semi-detached police houses and one pair of fire officer's houses, including construction of estate road, at Penybont, nr. Penparcau, Aberystwyth. County A. Dep. £3 3s.

SEPTEMBER 19

(A) ABERYSTWYTH BC.—Fixed price tenders for two blocks of four, two-storey flats, with drains, etc., on site between Fourth and Fifth-ave., Penparcau. Boro' S & Water E. Dep. £3 3s.

SEPTEMBER 20

(A) EAST RIDING OF YORKSHIRE CC.—Erection of two detached houses on site of new county sec. sch., Filey. County A. Dep. £2.

SEPTEMBER 21

(A) SHREWSBURY BC.—Fixed price tenders for 12 flats, 12 houses, with maisonette over, at New-st. Boro' S. Dep. £2 2s.

Contracts Placed

We are glad to receive from architects and quantity surveyors for publication details of contracts placed to the value of £20,000 or over. Such information should reach the Editor as soon as possible after the contract is signed. Names of the architect and other consultants associated should be given.

SEPTEMBER 22

(A) RICHMOND (Surrey) BC.—Rebuilding of Corporation depot (phase 1). Boro' E. Dep. £5 5s.

SEPTEMBER 29

(A) CARDIFF CITY C.—Fixed price tenders for a teachers' training college, Cyncoed. City A. Dep. £2 2s.

(AR) WATFORD RDC.—Erection of a social centre at Oxhey-pl., South Oxhey. Clerk to Council. Dep. £2 2s.

OCTOBER 3

(A) CHATHAM BC.—Erection of:—(a) 12 flats and 10 houses, and (b) two houses at Ordinace-st. redevelopment area (stage 2). Boro' E&S. Dep. £2 2s. (each contract).

(A) SWINTON & PENDLEBURY BC.—Erection of 70 houses and six blocks of four flats, with roads and sewers, at Beehive estate, Clifton, Lancs. Boro' E&S.

SERVICES, PAINTING, MATERIALS, ETC.

AUGUST 29

(AR) BEDFORDSHIRE EC.—Sub-contracts in connection with extensions at Bedford College of Physical Education—(a) Engineering services, and (b) electrical installation.

AUGUST 30

(AR) CARDIFF CITY.—Fixed price tenders for:—(a) Supply, delivery and fixing of gymnastic equipment, and (b) supply, delivery and assembly in position of fixed art and craft room and laboratory furniture, etc., at proposed Teachers' Training College, Cyncoed. City A. Dep. £2 2s. (each contract).

SEPTEMBER 1

(A) CORNWALL CC.—Sub-contracts for:—(a) Structural steelwork, and (b) metal windows in connection with the erection of a catering and women's block, Cornwall Technical College, Trevenson, Pool, Redruth. County A.

(A) TOTTENHAM BC.—(a) Supply and delivery of 'Sundeala' boarding to various schools in Borough. (b) Supply and fixing of 'Sundeala' boarding for display purposes. Boro' E&S.

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SEPTEMBER 14

(A) SUNDERLAND EC. — Mechanical engineering services in connection with new kitchen/dining room at Bede grammar schools. S. W. Milburn & Ptnrs., 9 The Esplanade, Sunderland.

MUNICIPAL AND CIVIL ENGINEERING WORKS, ETC.

AUGUST 22

(R) HOUGHTON-LE-SPRING UDC.—Construction of one sedimentation tank of 75,000 gal. capacity and two humus tanks, totalling 44,440 gal. capacity, etc., at Sedgeletch Sewage Disposal Works. D. Balfour & Sons, constg. engrs., 145 Pilgrim-st., Newcastle-upon-Tyne, 1. Dep. £5

AUGUST 30

MAIDSTONE BC.—Resurfacing of footpaths in parts of 12 roads in borough. Boro' E.

SOUTH CAMBRIDGESHIRE RDC.—Construction, testing and maintenance of approx. 4½ miles of asbestos-cement water mains, etc. Lemon & Blizard, Ccl's constg. engrs., 59 Tufton-st., Westminster, SW1. Dep. £5 5s.

AUGUST 31

CHATHAM BC.—Hardstown redevelopment area—roads and sewers (part II):—5,000 cu. yd. of excavation, 2,500 sq. yd. of bitumen macadam carriageway, foul and storm sewers, gravity and rc retaining walls, and ancillary works. Boro' E&S. Dep. £3 3s.

WHITTLESEY UDC.—Fixed price tenders for extensions to council's existing sewage disposal works. G. B. Kershaw & Kaufman, constg. engrs., 82 Victoria-st., SW1. Dep. £5 5s.

SEPTEMBER 3

PICKERING UDC.—Provision and laying of about 5,000 yd. of 3-4 in. dia. iron pipe water mains in six sections, within urban district. Elliott & Brown, Ccl's constg. engrs., Stanley-hse., Pelham-rd., Nottingham. Dep. £5 5s.

SEPTEMBER 5

AXMINSTER RDC.—Construction of approx. 1,000 yd. of 6 in. dia. sgw sewers and manholes, with small sewage disposal works, etc., for Hawkchurch Sewerage & Sewage Disposal Scheme. John H. Haiste & Ptnrs., Ccl's constg. engrs., 8/10 Southgate-st., Gloucester. Dep. £3 3s.

YORK CITY C.—Construction of 2,500 sq. yd. of tarmacadam on hardcore carriageways, 3,600 sq. yd. of car park, 300 lin. yd. of 9 in. stone glazed ware pipe, surface and foul water sewers, with brick manholes, and the demolition of cottage farm buildings, etc., at Central College of Further Education. City ES & Planning Officer. Dep. £2.

SEPTEMBER 9

CARDIFF CITY C.—Fixed price tenders for advance preparation works at Pentrebane-rd. housing scheme, comprising approx. 78,000 cu. yd. bulk, 55,000 sq. yd. new and improved carriageway, 12,500 lin. yd. of 9 to 30 in. dia. on-site and off-site foul and surface water sewers, and ancillary works. City S. Dep. £5 5s.

SEPTEMBER 14

(A) HUNTINGDON RDC.—Laying and jointing of approx. 500 yd. of 3 in. dia. asbestos-cement water main with screwed joints on a housing development site at Great Stukeley. Pick, Everard, Keay & Gimson, constg. engrs., 6 Millstone-la., Leicester. Dep. £2 2s.

SEPTEMBER 30

(A) HEMEL HEMPSTEAD BC.—Supply and erection of 2,800 yds. of 3ft. high cleft chestnut fencing on driven stakes, etc., at Seaton-rd./Runham-rd./Wood-cres. Boro' & Water E.

GENERAL BUILDING WORK (LONDON)

CAMBERWELL.—New Branch Library.—The Boro' A has prepared a scheme for the erection of a library, assembly hall and public convenience on a site at the corner of Old Kent-rd. and Peckham Park-rd.

HAMMERSMITH.—Town Planning Application.—LCC have received an application from the BBC to develop the East Block of the Television Centre, Wood-la., Hammersmith, as workshops, offices, stores and studio, etc.

HAMPSTEAD.—Residential Development.—Work is to begin shortly on the clearance of a site, comprising five and a half acres, in St. John's Wood Park, nr. Avenue-rd., St. John's Wood, NW8, for a residential development estimated to cost about £2m. The site has been leased for 125 years by the Norwich Union Insurance Societies from the Eyre Estate. Building is expected to take about two years. The development will comprise four blocks of flats of two and four bedrooms, and 17 private houses each of three or four bedrooms. The flats, numbering about 190, will be arranged in two main blocks, each in two parts of eight and 11 storeys at right-angles to each other, and two blocks each of four storeys. The design is by T. P. Bennett and Sons, the architects, and the building contract, valued at over £1½m., has been awarded to the Taylor Woodrow group.

KENSINGTON.—Town Planning Applications.—Following are brief details of TP applications recently lodged with the LCC: Multi-purpose arts centre at Cromwell-rd./Thurloe pl./Cromwell-pl. (George Davies & Webb); 12-storey building—petrol filling station, car park, showrooms, PH, bank, offices, cinema, etc.—at Holland-Park-ave./Holland-rd./Lorne-gdns (R. Seifert & Ptnrs.).

POPLAR.—Seamen's Club.—A seamen's residential club is to be built in Canning Town at a cost of £250,000. It will be the first seamen's premises in the whole of London's dock area designed with accommodation for families. Initially the club will have 50 bedrooms, half of which will be double bedrooms.

ST. MARYLEBONE.—Town Planning Applications.—Following are brief details of TP applications recently lodged with the LCC: Six-storey parking garage at junction of Harley-st./Queen Anne-st. (R. J. Husband); erection of offices, flats and houses, etc., at York-terr. west/York-terr. mews/Nottingham-terr./Marylebone-rd. (T. P. Bennett & Son).

WESTMINSTER.—Town Planning Applications.—Following are brief details of TP applications recently lodged with LCC: Seven-storey building—cinema, shop, offices, flats, etc.—at Curzon-st. (Sir John Burnet, Tait & Ptnrs.); Restaurant, shops and offices (rebuilding work) at Panton-st./Whitcomb-st./Oxendon-st./Whitcomb Court (A. Martin French).

(PROVINCIAL)

BELFAST.—Belfast Corporation's Housing Com. is to go ahead at once with preliminary arrangements for the £3m. slum clearance scheme in the Upper Library-st. area, following Ministry approval of its plans. . . . A firm of London consulting engineers, R. Travers-Morgan and Ptnrs., has been recommended for the job of preparing the plans for Belfast's new £1m. bridge to be built over the River Lagan.

BELLINGHAM.—RDC are to borrow £63,000 to build 21 houses at Otterburn, and £14,236 for sewage works at Kirkwhelpington.

BRIGHTON.—TC is to appoint an eminent architect as planning and architectural expert to advise and assist in selecting scheme for the 11½ acres sea front and West-st. site.

BRIGHOUSE.—BC propose housing development at Laverock-la. . . . Thornton, Hannam & Marshall Ltd. propose new office block at Brookfoot dye wks. . . . G. R. Dyson proposes erection of 18 pairs of bungalows at Cain-la., Southowram. . . . Thos. Ramsden & Son propose extensions/alterations at Clifton Arms Hotel.

BURNLEY.—RDC propose 10 bungalows at Sabden-rd., Higham, and 12 bungalows at Newchurch-in-Pendle.

BURY.—EC propose erection of hall/classroom block at Bury grammar sch.

BUXTON.—Derbys. CC propose erection of new clinic. Est. £27,750.

CARLISLE.—City E (L. J. A. Stow) is to prepare a detailed scheme for the construction of swimming baths. The work will be included in the 1961-62 programme. . . . City C is to spend about £86,000 on reconstruction work at Willowholme sewage works to plans by the City Engineer. . . . Road schemes proposed by the City C include Blackwell-rd. reconstruction (£17,250); St. Nicholas improvements (£20,700); Shaddongate improvements (£12,050). . . . City C has generally approved outline plans for showroom, workshops and storage for cars at London-rd. for the Scottish Motor Traction Co. Ltd. Architect is F. G. Jackson, Lowther Arcade-chbrs., Lowther-st., Carlisle. . . . EC is seeking sanction to borrow £93,000 for additions to Harraby sec sch.

CHESHIRE.—Following for CC:—New ambulance station at Tattenhall, £8,350 est.; clinic/divisional office at Memphis Hotel, Chester, £37,750 est.; adult training centre/day nursery/clinic at Ellesmere Port, £98,207 est.

DURHAM.—The Nuffield Provincial Hospitals Trust is to bear the cost, est. at £55,000, of constructing a pre-discharge ward at Dryburn Hospital. Work will be carried out by Newcastle Regional Hospital Bd., whose Ch. A is P. H. Knighton. . . . The County Health Com., during 1961/3, intend carrying out building schemes costing £544,000

EIRE.—The Eire Minister for Lands and Fisheries, Mr. O. Martin, has announced a £1m. development programme for fisheries in the Republic, under which the fishing ports of Howth, Castletownbere, Passage East and Galway are to be made major ports. In addition to these four ports, a £200,000 development scheme for Killybegs harbour, Co. Donegal, is also to be undertaken. These harbour developments are being carried out by the Government in Dublin as part of its overall programme for economic development.

ENNERDALE.—RDC propose erection of 50 houses and garages at Parton.

LANCS.—Following for EC: New branch libraries at Golborne, Adlington, Morecambe. . . . Minor works programme 1961/63: Classroom adaptations at Bleasdale House special sch. and Broughton Tower special sch.; new dormitory wing at Singleton Hall special sch.; new school clinics and child welfare centres at Fulwood, Aspull, Haslingden, Halewood, Whitworth and Garstang. Est. £125,000. . . . Following new schools to be included in future development plan:—Larkholme county sec., Fleetwood; county sec., Lytham/South Fylde; CoE sec., Over Wyre; county sec., Thornton Cleveleys; RC sec., Fleetwood; county grammar, Thornton Cleveleys; sec. sch., Darwen; RC sec., Lytham St. Annes; St. Michael's CoE sec., Chorley; St. Albans CoE sec., Chorley; CoE sec., Leigh; St. Hilda's RC sec., Chorley; Hesketh Fletcher CoE sec., Atherton; St. Mary's RC sec., Leigh; girls' grammar sch., Leigh; county sec., Tyldesley/Atherton; Bishop Marshall Memorial RC sec., Middleton; county sec, Littleborough; county sec., Whitworth; county sec., Milnrow; Heap Bridge & Siddall Moor county secs., Heywood; grammar sch., Middleton; grammar sch., Heywood; North Chadderton county sec., Chadderton; Our Lady's RC sec., Royton; Luzley Brook county sec., Royton; SS. Fisher & More RC sec., Widnes; Moss Brook county sec., Widnes; boys grammar, Chadderton. . . . Following for CoE Auth.: Transferred sch., Radcliffe; extensions to infant/junior sch., Bryning-with-Warton; assembly hall/kitchen/2 classrooms at Heyhouses Endowed, Lytham St. Annes; new infant & jun. sch., St. John's, Nelson. . . . Following for RC Auth.:—Sec. sch., St. Joseph's, Whitfield; infant/jun. sch., Sabden; new jun. sch., St. Monica's, Urmston; extension to 12-form comprehensive sch., St. Gregory's for Girls, Kirkby; new sec. sch., English Martyrs, Billington; sec. sch., Horwich; three classrooms, The Cathedral, Lancaster.

MIDDLESBROUGH.—Wimpey & Co. Ltd., Orchard-hse., Fenwick-ter., Newcastle-on-Tyne, are to carry out further developments at Acklam-rd. estate, including the erection of 54 semi-detached houses, 24 semi-detached bungalows and 125 garages. . . . Plans have been approved for extending shop and store at 1-11 Newport-rd. for J. Newhouse Ltd. Architects are Garbutt, Archibald & Archibald, Middlesbrough. . . . Boro' E (J. A. Kenyon) has prepared plans for four blocks of three-storey flats and maisonettes (36 dwellings) at St. Hilda's, Middlesbrough.

MILLOM.—RDC propose erection of 44 houses/18 garages at Devonshire-rd.

ROCHDALE.—BC propose erection of 470 houses during 1960/62.

RUNCORN.—British Transport Commission propose reconstructing Runcorn Station. . . . Cholmondeley Estate Co. Ltd. propose housing development at Pewithall Farm. . . . ASM Co. propose new factory at Picow Farm-rd. . . . RSPCA (Runcorn Branch) propose erection of animal clinic at Windmill-st.

STOCKTON-ON-TEES.—The North Tees Hospital Management Com. is recommending Newcastle Regional Hospital Bd., Benfield-rd., Newcastle-on-Tyne, to erect new boilerhouse with boiler plant at Stockton Children's Hospital at a cost of £12,000.

STOCKTON-ON-TEES.—V. O. Connor, Newcastle-on-Tyne, have prepared plans for offices, garage and showroom at Haverton Hill-rd. for Miller & Gordon Ltd., Liverpool. . . . Boro' A is to prepare a scheme for converting Stockton grammar sch. into a youth centre. . . . The Boro' A has been asked to prepare plans for a £150,000 bus depot, including administration block and workshops.

STRETFORD.—Postmaster General proposes erection of new post office at Sixth-st., Trafford Park. . . . BC to invite selected tenderers for tower blocks of flats at Cornbrook Park-rd. . . . Bracegirdle Motors Ltd. propose erection of showrooms/office/stores extension at Upper Chorlton-rd.

WIGAN.—Lancs. CC propose reclamation of 1,700 acres derelict land at Ince for housing development.

WIGTON (Cumberland).—Additions are proposed to the girls' section of The Friends' School, Brookfield, Wigton. Cost will be £17,000.

WINCHESTER.—City C has approved in principle lay-out plans by Trust Houses Ltd. for a new hotel on the site of present cathedral car park and spreading across to Paternoster Row and Colebrooke-st. . . . Hampshire CC is to be recommended to build new Law Courts on a site adjoining the Castle, and to be asked to authorise the engagement of an architect for the preparation of sketch plans and elevations.

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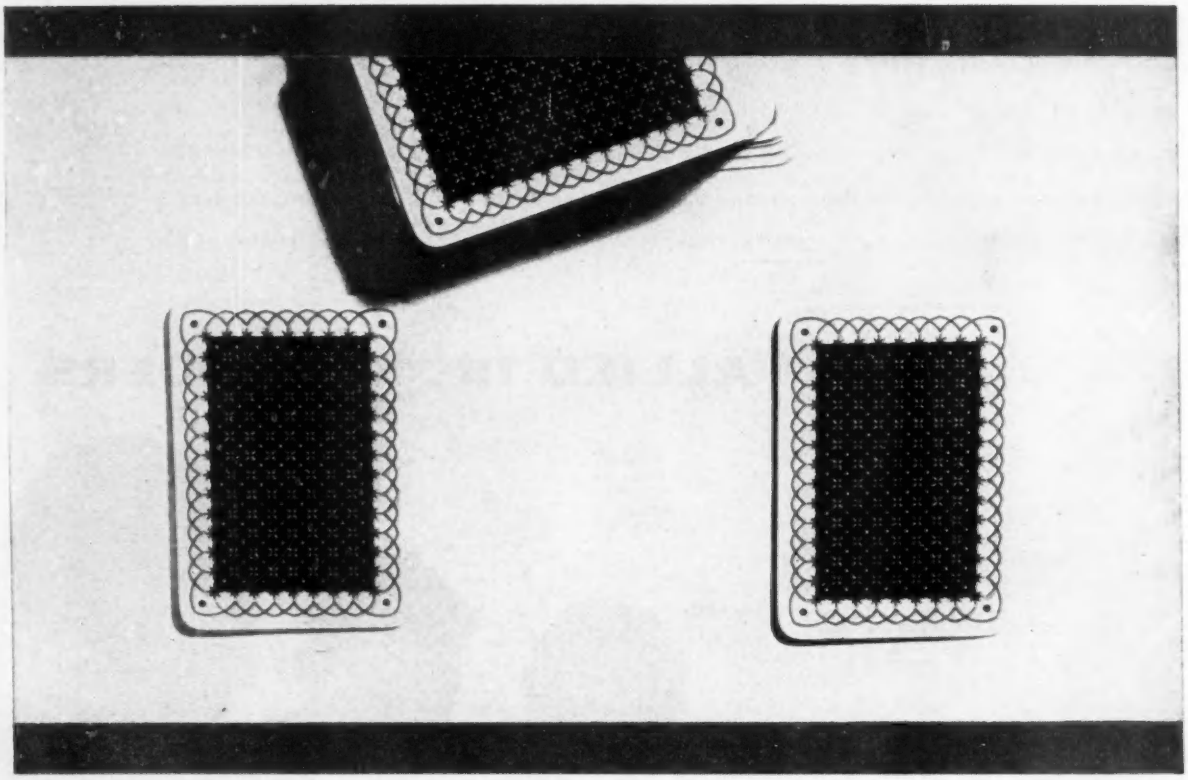

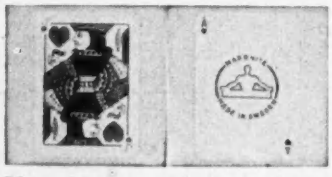

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SM/2/60

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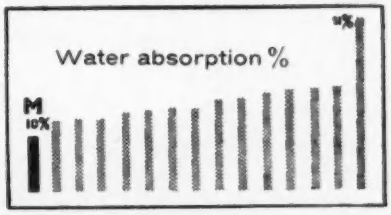
STATENS PROVNINGSANSTALT
STOCKHOLM

Uppdragsgivare: P. Wikstrom Jor., Stockholm
Formål: 16 st träfiberskiver
Undersökning: Svällning och vattenabsorption

	Water absorption	Swelling
MASONITE	9·6	8·9
Mean value for 14 other makes	22·3	17·7
Maximum among these	50·7	23·3
Minimum ,, ,,	15·8	12·2



TENDERS

(A) Denotes *accepted.*
(PA) Denotes *provisionally accepted.*
(RA) Denotes *recommended for acceptance.*
(AM) Denotes *accepted subject to modification.*
(GD) Denotes *accepted subject to approval by appropriate Government Department.*

BATHGATE (Scotland).—Second stage of development for new factory for BMC. (A) Robert M. Douglas Ltd., £500,000.

BICESTER.—Erection of 54 'Homeville' houses at Western Development for UDC. (A) F. J. Minns & Co. Ltd., Oxford.

BILLINGHAM-ON-TEES.—Erection of 63 houses at Roseberry-rd. housing site No. 8 for UDC. (A) Stephen Coates Ltd., Langbaurgh-pl., North Ormesby, Middlesbrough.

BIRKENHEAD.—Following for BC:—Erection of 246 houses at Woodchurch estate. (A) Geo. Wimpey & Co. Ltd., Liverpool, £509,600; erection of 110 houses at Preston Dell estate. (A) Sir Robt. Lloyd & Co. Ltd., Bromborough, £186,808; erection of 159 houses/80 garages at Woodchurch estate. (A) Thos. Warrington & Sons Ltd., Ellesmere Port, £286,750.

BIRMINGHAM.—Multi-storey car park at Austin Motor Co.'s works, Longbridge. Harry W. Weedon, FRIBA, & Ptnrs., 45 Calthorpe-rd., Edgbaston, Birmingham, 15, architects. L. C. Wakeman & Ptnrs., 11-12 Highfield-rd., Edgbaston, 15, quantity surveyors. (A) R. M. Douglas (Contractors) Ltd., 395 George-rd., Erdington, Birmingham.

BIRMINGHAM.—Following for City C:—Erection of prim. sch. at Vauxhall-gdns. (A) B. Whitehouse & Sons Ltd., £66,562; renewal of heating system at Wm. Murdoch sec. sch. (A) B. Whitehouse & Sons Ltd., £13,560; erection of 108 dwellings and 50 lock-up garages at Lower Beaches-rd., Egghill-la. estate. (A) Wates Ltd., £255,609; new branch library at Hall Green. (A) Direct labour, £32,257.

BOLTON.—New PH at New-la. for Magee Marshall & Co. Ltd. (A) George & Beddows Ltd., Bolton.

CAMBERWELL.—Following for MBC:—Erection of 28 dwellings at The Abbey site, Honor Oak Rise. (GD) J. & R. Rooff Ltd., £90,848; erection of 14 type S/2 flats at Grove Park site. (GD) Direct labour, £33,884.

CHELTENHAM.—Additions and alterations to the casualty and out-patients' dept. of Cheltenham General Hospital for South Western Regional Hospital Bd., Bristol. Healing & Overbury, architects. (A) Ford & Weston Ltd., £74,562.

CREWE.—Erection of 400 bungalows at Wistaston for BC. (A) Bryant Estates Ltd., Birmingham.

CUCKFIELD.—19 dwellings at Scaynes Hill for RDC. E&S is A. Hutchings. (A) Thomas White (Haywards Heath) Ltd., Franklynn-rd., Haywards Heath, Sussex, £25,133.

DURHAM.—Construction of trunk main from Castleside to Auton Stile in connection with the Derwent reservoir scheme, for Durham County Water Bd. (A) Direct labour, £692,000.

ESTON (Yorks.).—Construction of roads and sewers to serve 204 new houses at Church-la. housing site for UDC. (A) T. R. Illingworth & Co. Ltd., Peterlee, £36,482.

FAVERSHAM.—Erection of 26 houses at Upper Brents for BC. Boro' E&S is A. C. E. Richardson. (A) Messrs. R. M. Brookes Ltd., The Square, Lenham, Kent, £35,409.

GATESHEAD.—Erection of a transport depot (25,000 sq. ft.) at Team Valley trading estate for J. W. Capstaff Ltd., Newcastle-on-Tyne. (A) Kendall Cross & Co. Ltd.—Erection of Gateshead Technical College (third stage) for EC. (A) Cussins (Contractors) Ltd., Gosforth.

GLOSSOP.—Re-organisation of baths for BC. (A) J. J. Oakes & Sons Ltd., Dialstone-la., Stockport, £24,999.

HALIFAX.—New CoE sec. mod. sch. at Holy Trinity for Governors. (A) Pickles Bros. (Builders) Ltd., Gibbott-st., Halifax.—Alterations and extensions to head office of Halifax Building Soc. (A) L. & W. Morrell Ltd., Low Moor, Bradford.

GRANTHAM.—Erection of 33 bungalows and 60 houses at Earlesfield, for Council. (A) W. J. Roberts Ltd., £135,825.

HAMMERSMITH.—Modernisation work at White City stadia for Greyhound Racing Assn. Ltd. Begbey & Meers, architects. (A) Ford & Walton Ltd. Est. £200,000.

KEIGHLEY.—Erection of 74 dwellings at Low Bank-la. estate for BC. (A) E. Turner Ltd., Keighley.

LEEDS.—Following for TC:—New shopping centre at Lincoln Green. (A) West & Sons (Leeds) Ltd., £118,688; erection of aged persons' hostel at Stanningley. (A) West & Sons (Leeds) Ltd., £71,000.—New Church of the Ascension, Seacroft, for Church Auth. (A) R. M. Thompson Ltd., Lady-la., Leeds, £24,516.

LIVERPOOL.—Erection of 18 flats and one garage at St. James-st./Duncan-st. for TC. (A) R. J. Barton & Sons Ltd., Formby, £28,528.—Rebuilding of Shaftesbury Hotel for David E. Williams (Lord Nelson Hotel) Ltd. (A) Anderson Molyneux Ltd., St. Thomas-st., Liverpool.

(GD) LONDON (Air Ministry).—Contracts to the value of £4,000 or over for week ended August 12:— *Building work:* Daws Hill, Bucks; Janes (Builders) Ltd., Buckingham-ave. trading estate, Slough, Bucks. Carnaby, Yorks; A. J. Darneley & Son Ltd., 68 Spring-st., Hull, Yorks. Middleton St. George, Co. Durham; W. Sanders Hutton Ltd., 43 Coniscliffe-rd., Darlington, Co. Durham. Edzell, Angus, Scotland; William Tawse Ltd., Angusfield, Aberdeen. Coningsby, Lincs.; J. T. Barber & Son, 40 Hessle-ave., Boston, Lincs. *Building work, prefab. sectional buildings (supply and erection):* Various ATC units in UK; Spooners (Hull) Ltd., Stoneferry, Kingston-upon-Hull. *Artificers' work:* Chivenor, Devon; James Dennis & Son Ltd., Knowle, Braunton, Devon. Stanbridge, Beds., etc.; M. & F. O. Foster & Co. Ltd., 23 York-rd., Hitchin, Herts. *Heating installations:* Bovingdon, Herts; Ashwell & Nesbit Ltd., Barkby-rd., Leicester. *Supply and installation of heating and ventilating apparatus:* Kemble, Glos.; Andrew Air Conditioning Ltd., Woodbank-wks., Stockport, Cheshire.

(GD) LONDON (British Railways).—New London Midland contracts:— Soil investigation in preparation for reconstruction of Birmingham New Street Station; Terresearch Ltd., Greenford, Mddx.—Construction of bridge to carry line over Birmingham/Preston Motorway at Knutsford for MoT; George Drew & Co. Ltd., Oldham, Lancs.—Cleaning and painting of Manchester Central passenger station; Arundel (Contractors) Ltd., Bradford, Yorks.

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(GD) LONDON (Metropolitan Police).—Contracts recently placed:— Builders attendance on conversion to oil-fired heating at Old Street Magistrates Court. Charles R. Price, £1,294.—External painting at Lambeth Buildings and garages. F. Troy & Co. Ltd., £2,163.—Extension of LPS accommodation at Walton Street Juvenile Court and Probation Offices. Apletree & Son, £7,714.—External painting and internal redecorations at Sandgate House and Mount Close, Ealing. The Middlesex Paint Craftsmen, £6,698.—External painting and internal cleaning and redecorations at Twickenham Police Station. W. J. Dickens Ltd., £1,069.

(GD) LONDON (MoW):—Contracts placed for week ended July 30:—*Ayreshire:* Erection of telephone engineering centre and motor transport workshop, York-st., Ayr; Thos. Findlay & Sons Ltd., Horwood-pl., Mauchline. *Gloucestershire:* Re-roofing of No. 1 garage at Crown-wks., St. Philips, Bristol; E. A. Bicknell & Sons Ltd., Mersham-rd., Bristol 2. *Lancashire:* Erection of station sorting office and sub-post office, Westcliff, Preston; John Laing & Son Ltd., Carlisle. *Lanarkshire:* Erection of HT and LT switchgear at High Temperature Materials Laboratory, East Kilbride; Brush Electric Engineering Co. Ltd., 126 Vincent-st., Glasgow, C2. *London:* Erection of shaft-head building and lift motor room, etc., at London Telephone Region site, Boldero-st., NW8; Dearsley & Carter Ltd., 91/93 King-st., Hammersmith, W6. Construction of Branch Post Office, 121/125 Lupus-st., Pimlico, SW1; Richard Maddern Ltd., 15 The Viaduct, Sherwood-rd., South Harrow, Middx. *Staffordshire:* Erection of Post Office and Sorting Office, The Avenue, Kidsgrove, Stoke-on-Trent; George A. Poole Ltd., 37 Liverpool-rd., Newcastle. *Worcestershire:* Alterations and extensions to power room at automatic telephone exchange, Franche-rd., Kidderminster; J. Herbert Smith (Kidderminster) Ltd., 5 George-st., Kidderminster. Erection of 20 houses, external works and services at housing site, Leigh Sinton-rd., Malvern; Espley & Co. Ltd., 62 High-st., Evesham. *Yorkshire:* Erection of telephone exchange, Leopold-st., Dinnington; Wm. Drabble & Sons Ltd., 22/24 High-rd., Mosborough.

(GD) LONDON (MoW).—Contracts placed for week ended August 6:—*Berkshire:* Erection of telephone exchange, Sun Passage, Windsor; Clayton Heath Ltd., Boyne-wks., Maidenhead. *Dumfriesshire:* Erection of automatic telephone exchange, Victoria-rd., Annan; J. Crombie & Son (Annan) Ltd., Carrutherstown. *Flintshire:* Decoration work at Polish Hospital, Penley; E. H. Evans & Co., 12 Ridley View, Queen's Park, Wrexham. *Hertfordshire:* Accommodation for MoW engineers at Warren Springs laboratory, Stevenage; Crook Bros., Wotton-rd., Ware. Builder's work in connection with installation of electronic computer at Ministry of Labour, Watford; Payne Bros. (Leavesden) Ltd., Leavesden, Watford. *London:* Electric lighting, etc., at Admiralty, Whitehall; Read & Ptnrs, Ltd., 28 Hatfields, Stamford-st., SE1. External and internal decorations at Royal Courts of Justice, Strand, WC2; South London Decorators Ltd., Streatham High-rd., SW16. *Midlothian:* Alterations at Joint Office Building, 26 Elden-st., Edinburgh; Alexander Kent, Esq., 22 Brunswick-rd., Edinburgh 7. *Shropshire:* Erection of Post Office and sorting office, Willow-st., Oswestry; W. Watkins & Co. Ltd., 18 Oswald-rd., Oswestry. *Wigtownshire:* Erection of coastguard house, Portpatrick; Mackenzie & Partners Ltd., South Strand-st., Stranraer.

(GD) LONDON (War Dept.).—Contracts placed for week ended August 5:—*Essex:* Painting at Colchester; Donald Humberstone & Co. Ltd., Louth. Housing at Foulness Island; W. & C. French Ltd., Buckhurst Hill. *Flintshire:* Roadwork at Rhyl; Shepherds (Rochdale) Ltd., Rochdale. *Hampshire:* Building at Aldershot; Davies & Rentowl (Aldershot) Ltd., St. Albans. *Northumberland:* Roadwork at Newcastle-on-Tyne; Pavior Construction Co. Ltd., Shipley. *Nottinghamshire:* Building at Chilwell; Harold Ashley & Son Ltd., Mansfield Woodhouse. *Surrey:* Building at Camberley; F. Church Ltd., Oxford. Hutting at Camberley; Davies & Rentowl (Aldershot) Ltd., St. Albans. *Wiltshire:* Roofing at Shriven-

ham; T. H. Kingerlee & Sons Ltd., Oxford. *Yorkshire:* Painting at Catterick; Donald Humberstone & Co. Ltd., Louth.

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19-8-60

MATLOCK.—Erection of 20 'Homeville' flats at Darley Dale, and three bungalows at High-st., Bonsall, for UDC. (A) J. Moorhouse, Codnor.

MIDDLESBROUGH. — Erection of 27 houses at Easterside for TC (A) Moore & Cartwright Ltd., Norton-on-Tees.—Proposed warehouse and store extension at Grange-rd. for J. Hartes & Co. (A) Coultas & Shaw Ltd.

NEWCASTLE-ON-TYNE. — Erection of foundry storage building at Glasshouse-st. for British Engines Ltd. (A) R. Bowey & Son, South Gosforth.—Erection of a five-storey business block at Low Friar-st. for Greencoat Properties Ltd. (A) R. W. Bell & Co. Ltd., £200,000.—Erection of a wholesale warehouse and showrooms at Thornton-st. for Waterloo House (Newcastle) Ltd. Arthur & Kirkup, architects. (A) R. C. Williamson Ltd. (work started).

NEW MALDEN.—Erection of four-storey extension to factory premises at Burlington-la. for The Shannon Ltd. Wallis Gilbert & Ptnrs., architects and surveyors. (A) Higgs & Hill Ltd., £100,000.

NORTHAMPTON.—Erection of 141 flats at Althron-st./Herbert-st. for CBC. B. Bunch, architect. W. V. Zinn, constg. engr. E. Howard & Son, quantity surveyors. (A) Tersons Ltd., £289,228.

PLYMOUTH.—The quantity surveyors for erection of a factory and office block at Burrington for the City C were Messrs. Gleeds (Plymouth) and not as stated in our issue of August 5. The successful contractor was Dudley Coles Ltd., who tendered at £131,203, and the architects Alec French & Ptnrs., of Royal Parade, Plymouth. We regret the error.

PRESCOT.—New supermarket at Limehouse cinema site for Lennon's (Retailers) Ltd., St. Helen's. (A) Norman Astbury, Hamer-st., St. Helen's.

PRESTON.—Erection of new store at Friar-gate for Brador Estates Ltd. North & Ptnrs., architects. (A) Pauling Construction Co. Ltd.

RICHMOND (Yorks.).—Erection of 20 old people's bungalows and warden's house and 20 other houses at Brompton-on-Swale for RDC. (A) F. Shepherd & Son, Lion-hse., Pottergate, Richmond, Yorkshire, £66,977.

SITTINGBOURNE & MILTON. — Fixed price tenders for two blocks of 'H' type flats and three pairs of houses at Rectory-rd. for UDC. E&S is A. W. Lloyd. Quantities by Rider Hunt & Ptnrs., 118 High-st., Gillingham. (A) Messrs. T. R. Swann & Son Ltd., Staplehurst-rd., Sittingbourne, £18,320.

SOUTHPORT. — Erection of occupation and industrial centre, Ainsdale, for CBC. Boro' A is W. L. Lowry. (A) David Lesley (Contractors) Ltd., 20 Tithebarn-st., Liverpool 2, £37,766.

TIPTON.—Following for BC:—Erection of 62 houses and eight garages at Aston-st. (A) T.G. Construction Ltd., Wolverhampton, £106,338; erection of 48 flats and 24 garages at John's-rd. (A) Direct labour, £74,948.

WALLSEND.—Office and factory extension for J. & E. Hall Ltd., Dartford. (A) Fordyce Brothers, Dartford.—Erection of 20 old people's houses at Village Green Farm for TC. (A) J. H. James & Sons, £23,512.

WALSALL.—Conversions of Manor Hospital for Birmingham Regional Hospital Bd. (A) Deacon & Boardman Ltd., Walsall, £19,265.

WARRINGTON.—New supermarket at Royal Court Theatre site for Lennon's (Retailers) Ltd., St. Helen's. (A) Norman Astbury, Hamer-st., St. Helen's.

WELLINGTON.—New out-patients' dept. at Wrekin Hospital for Birmingham Regional Hospital Bd. (A) G. Linnecor & Son Ltd., Birmingham, £49,959.

WEST HARTLEPOOL.—First stage of proposed St. Teresa's RC prim. sch. Architect is D. Brown. (A) Tate & Holmes Ltd., Benwell, Newcastle-on-Tyne.

WEST LOTHIAN.—Erection of second stage of a new factory at Bathgate for BMC. Harry W. Weedon & Patners., Birmingham. (A) Robert M. Douglas Ltd., £500,000.

WOKINGHAM.—Erection of 21 dwellings at Commons-rd. housing site for BC. Boro' S is E. F. Pressey. Quantities by Henry Cooper & Son, 64 London-rd., Reading. (A) Orchard & Peer (London) Ltd., 32 Leopold-rd., Wimbledon, London, SW19, £47,520.

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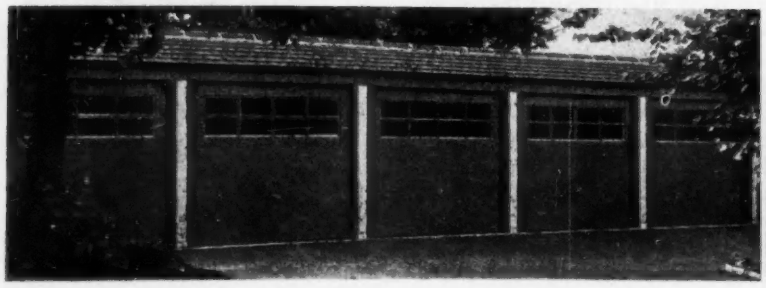

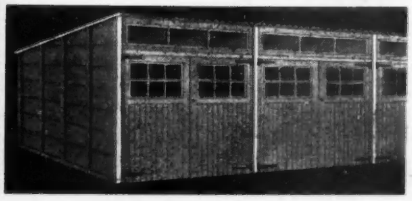

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ATTENTION ADVERTISERS

Classified advertisements in this section can be accepted up to 12 o'clock noon on the TUESDAY prior to issue. It is regretted that advertisements cannot be accepted by telephone.

CONTRACTS

SOUTHEND-ON-SEA
COUNTY BOROUGH.

PROPOSED EXTENSION TO DINING ROOM, SOUTHEND HIGH SCHOOL FOR GIRLS, THORPE BAY, ESSEX. TO BUILDING CONTRACTORS.
TENDERS.

Contractors desiring to TENDER for this project are invited to submit their names to the Borough Architect, 30 Alexandra-street, Southend-on-Sea, not later than TUESDAY, 6th SEPTEMBER, 1960, accompanied by details of similar works previously undertaken and names of Architects from whom references may be obtained.

The contract comprises the ERECTION OF A SINGLE-STOREY EXTENSION TO THE EXISTING DINING HALL, about 44 ft. x 34 ft. x 10 ft. high overall, consisting of concrete foundations and floors, brick walls, steel columns and flat roof including decorations and ancillary works.

From such applications a selected list of tenderers will be made by the Committee and those selected will be notified and will be required to make a payment of a deposit of £2.

Upon receipt of this deposit, Specification, Drawings and Form of Tender will be forwarded, and it is anticipated that these will be available in September, 1960. The deposit of £2 will be refunded on receipt of a bona fide Tender or the return of all loaned documents.

The Corporation do not bind themselves to accept the lowest or any Tender.

ARCHIBALD GLEN, Town Clerk.

HAMPSHIRE
COUNTY COUNCIL.

TENDERS will be invited for the ERECTION OF TWO-STOREY PRACTICAL BLOCKS AND EXTENSIONS TO THE KITCHENS (total floor area approximately 9,500 sq. ft.) at each of the following schools :

Petersfield County Secondary School.

Bordon Mill Chase County Secondary School.

Farnborough Fernhill County Secondary School.

Applications for forms of tender for individual projects should be sent to the Architects, Messrs. Jackson and Greenen, Hinton Buildings, Hinton-road, Bournemouth, together with a deposit of £2 2s. for each project, payable by cheque to the County Treasurer, by noon on FRIDAY, 9th SEPTEMBER, 1960. The deposit will be refunded on receipt of a bona fide tender or the return of the documents.

Tender documents will be available during the week beginning 12th SEPTEMBER and tenders are to be delivered to the Clerk of the County Council, The Castle, Winchester, within four weeks of the date of issue. The County Council does not bind itself to accept the lowest or any tender.

G. A. WHEATLEY,
Clerk of the County Council.

WEST RIDING OF YORKSHIRE
COUNTY COUNCIL.

TENDERS are invited for STRUCTURAL ALTERATIONS AND IMPROVEMENTS TO THE HOUSE BLOCK at the County Welfare Establishment, Thornton View, Clayton.

Plans and Specifications are now available for inspection at the office of the Divisional Architect, Flint-street, Huddersfield.

Applications to tender must be addressed to the Divisional Architect, Flint-street, Huddersfield, and received not later than 29th AUGUST, 1960.

Sealed Tenders must be addressed to me, the undersigned, and received at Room 5, County Hall, Wakefield, not later than 12 NOON on MONDAY, 12th SEPTEMBER, 1960.

BERNARD KENYON,
Clerk of the County Council.

CORNWALL
COUNTY.

NOTICE IS HEREBY GIVEN of the intention to let separately the Sub-Contracts for (a) STRUCTURAL STEELWORK and (b) METAL WINDOWS in connection with the ERECTION OF A CATERING AND WOMEN'S BLOCK at the Cornwall Technical College, Trevenson, Pool, Redruth.

Applications are invited for permission to TENDER for these Sub-Contracts and should be made to the County Architect, County Hall, Truro, not later than THURSDAY, 1st SEPTEMBER, 1960, from which a selected number of firms will be invited to tender. The closing date for receipt of Tenders will be notified when the documents are despatched.

The lowest or any Tender will not necessarily be accepted nor will the County Council pay to Contractors any fees or expenses incurred in the preparation of Tenders.

E. T. VERGER,
Clerk of the County Council.
County Hall,
Truro.
10th AUGUST, 1960.

TAMAR BRIDGE
JOINT COMMITTEE.

Applications to TENDER are invited from Building Contractors for the ERECTION OF THE ADMINISTRATIVE BUILDINGS in connection with the Tamar Bridge scheme.

The successful contractor will be required to act as a sub-contractor to the main contractors.

Names should be submitted to Messrs. Mott, Hay and Anderson, of 9 Iddesleigh House, Caxton-street, Westminster, London, S.W.1.

No application received after FRIDAY, 26th AUGUST, 1960, will be considered.

CARDIFF CITY.

CITY ARCHITECT'S DEPARTMENT.
TENDER FOR THE ERECTION OF 194 DWELLINGS AT RUMNEY, BUTETOWN AND ELY NORTH.

FIXED-PRICE TENDERS are invited for the CONSTRUCTION of the following DWELLINGS in three contracts.

GROUP 1—105 DWELLINGS, MANORBIER-CRESCENT EXTENSION RUMNEY, COMPRISING :

6 ONE-BEDROOM BUNGALOWS in two blocks.
10 THREE-BEDROOM SEMI-DETACHED HOUSES.
5 THREE-BEDROOM TERRACE HOUSES in one block.
72 ONE-BEDROOM FLATS in five three-storey blocks.
12 ONE- AND TWO-BEDROOM FLATS in one block.

GROUP 2
39 DWELLINGS, LOUDOUN-SQUARE, BUTETOWN COMPRISING:
27 ONE-BEDROOM FLATS in three three-storey blocks.
12 THREE- AND FOUR-BEDROOM FOUR-STOREY MAISONETTES in one block.

GROUP 3
50 DWELLINGS, 1 SHOP AND 6 GARAGES AT GREEN FARM, ELY NORTH.
46 TWO-STOREY ONE-BEDROOM FLATS.
3 THREE-BEDROOM HOUSES.
1 SHOP WITH THREE-BEDROOM LIVING ACCOMMODATION.
6 BRICK GARAGES.

Contractors may tender for one or more contracts but each contract must be tendered for separately.

Conditions of Contract, Drawings and Specifications may be inspected at the City Architect's Department, Municipal Offices, Greyfriars-road, Cardiff.

Drawings, Bills of Quantities and Form of Tender may be obtained from the City Architect to whom application should be made, accompanied by a deposit of £2 2s., for each contract. Cheques should be made payable to the Cardiff Corporation and crossed "Not negotiable and Co." The deposit will be refunded on receipt of a bona fide tender or the return of the contract documents.

Tenders will not be considered unless enclosed in the envelope provided and endorsed "Tender for . . . . Dwellings at . . . . " (as the case may be), addressed to the Town Clerk at the City Hall, Cardiff, and sent by REGISTERED POST so as to be received not later than the 13th SEPTEMBER, 1960.

The envelope must not bear the name of or any mark indicating the identity of the Tenderer.

Completed Bills of Quantities must not be submitted with the Tender but must be sent completed in ink, so as to be in the hands of the City Architect within three days after written request following the opening of Tenders.

The Council does not bind itself to accept the lowest or any Tender.

S. TAPPER-JONES,
Town Clerk.

City Hall,
Cardiff.
August, 1960.

WIGAN
COUNTY BOROUGH.

ERECTION OF 27 DWELLINGS—DRUMMOND-SQUARE SITE, LAITHWAITE HOUSING ESTATE.

The Council invites TENDERS for the PROPOSED ERECTION OF THE FOLLOWING DWELLINGS, all of traditional construction:—

TWELVE TYPE "E1" THREE-BEDROOM HOUSES at end of blocks.
SEVEN TYPE "E2" THREE-BEDROOM HOUSES in middle and at end of blocks.
FOUR TYPE "F1" CORNER BLOCKS COMPRISING TWO FLATS, one- and two-bedroom.

Tenders to be on a "Fixed Price" basis and on Bills of Quantities, which will be available on or after Friday, the 5th August, 1960, by application to Mr. G. Keighley, B.Sc., Borough and Water Engineer, Municipal Buildings, Library-street, Wigan, and on payment of a deposit of Two Guineas (cheques payable "Wigan Corporation"), which will be returned on receipt of a bona fide Tender received before the closing time on the last day of Tendering.

Drawings, Conditions of Contract and the Council's Standing Orders may be inspected at the Office of the Borough and Water Engineer during normal office hours by all persons having made the necessary application to Tender.

When applying for Bills of Quantities, Tenderers should also submit details of similar schemes undertaken by them, together with the names of two independent persons to whom reference can be made concerning such schemes. Evidence should be submitted at the same time that the Tenderer will have the organisation and labour to carry out the work expeditiously.

Tenders must be delivered to the Office of the undersigned not later than 10 a.m. on MONDAY, the 12th SEPTEMBER, 1960.

ALLAN ROYLE,
Town Clerk.

Municipal Buildings,
Wigan.

WATFORD
RURAL DISTRICT COUNCIL.

PROPOSED SOCIAL CENTRE, SOUTH OXHEY.

The Council invite TENDERS for the ERECTION OF A SOCIAL CENTRE on a site at Oxhey Place, South Oxhey, in accordance with plans which may be inspected at the Council Offices.

Contractors should apply by the 29th AUGUST, 1960, for the supply of copies of the Bills of Quantities and form of tender, which will be issued after that date. Applications must be accompanied by a deposit of two guineas (£2 2s.) which will be repayable after the submission of a bona fide tender and the return of all documents supplied.

Directions for the submission of tenders will be issued to applicant Contractors with copies of the tender documents.

The Council do not bind themselves to accept the lowest or any tender and security will be required for the due performance of the Contract.

S. A. NICHOLSON,
Clerk to the Council.

Council Offices,
Wynyard House,
99 Langley-road,
Watford,
Herts.

SWINTON & PENDLEBURY
BOROUGH.

THE ERECTION AND COMPLETION OF 70 HOUSES AND 6 BLOCKS OF 4 FLATS TOGETHER WITH THE CONSTRUCTION OF ROADS AND SEWERS AT THE BEEHIVE ESTATE (SECTION 3), CLIFTON, LANCASHIRE.

TENDERS are invited from suitable contractors for the above work. Bills of Quantities and Forms of Tender will be available from the 1st SEPTEMBER, 1960, and may be obtained from the Borough Engineer and Surveyor, Town Hall, Swinton, Lancs. Closing date for receipt of tenders 3rd OCTOBER, 1960.

CATERHAM & WARLINGHAM
URBAN DISTRICT COUNCIL.

ERECTION OF SIX FLATS.

TENDERS are invited for the ERECTION OF A BLOCK OF SIX FLATS at Godstone-road, Whyteleafe.

Plans, Specification and Form of Tender may be obtained from the Engineer and Surveyor. The Conditions of Contract may be inspected at the Council Offices.

Tenders in the endorsed envelope provided, should reach the undersigned not later than 6 p.m. on MONDAY, 12th SEPTEMBER, 1960.

The Council do not bind themselves to accept the lowest or any tender.

B. J. SMERDON,
Clerk of the Council.

Council Offices,
Caterham,
Surrey.

SOUTHAMPTON
C.B.C.

invites TENDERS for the following contract on Bills of Quantities available in SEPTEMBER.

Contract 8, 327—BLOCK OF 14 SHOPS AND 26 DWELLINGS WITH GARAGES AND ANCILLARY WORKS at Thornhill Estate.

Applications for tender documents should be received by the Southampton Engineer, Civic Centre, Southampton, by 10 a.m. on FRIDAY, 9th SEPTEMBER, 1960.

CARDIFF CITY.

CITY ARCHITECT'S DEPARTMENT.
PROPOSED TEACHER TRAINING COLLEGE, CYNCOED.

FIXED-PRICE TENDERS are invited for the ERECTION OF A NEW TEACHER TRAINING COLLEGE for 400 students, with Residential Accommodation for 300 students and staff.

The College is of one-, two- and three-storey construction, 71,367 sq. ft. floor area, and the Residential Accommodation is of two- and three-storey construction, 66,467 sq. ft. floor area. The total value of the works is approximately £550,000.

The whole of the works are to be complete by JUNE, 1962.

The site preparation works are now being carried out under a separate contract.

The tender documents will be available on the 1st SEPTEMBER, 1960.

Conditions of Contract, Drawings and Specification may be inspected at the City Architect's Department, Municipal Offices, Greyfriars-road, Cardiff.

Specification, Bills of Quantities and Form of Tender may be obtained from the City Architect to whom application should be made, accompanied by a deposit of £2 2s. Cheques should be made payable to the Cardiff Corporation and crossed "Not negotiable and Co." The deposit will be refunded on receipt of a bona fide tender or the return of the contract documents.

Tenders will not be considered unless enclosed in the envelope provided and endorsed "Tender for Teacher Training College, Cyncoed" addressed to the Town Clerk at the City Hall, Cardiff, and sent by REGISTERED POST so as to be received not later than the 29th SEPTEMBER, 1960.

The envelope must not bear the name of or any mark indicating the identity of the Tenderer.

Completed Bills of Quantities must not be submitted with the Tender but must be sent, completed in ink, so as to be in the hands of the City Architect within three days after written request following the opening of Tenders.

The Council does not bind itself to accept the lowest or any Tender.

S. TAPPER-JONES,
Town Clerk.

City Hall,
Cardiff.
August, 1960.

HUNTINGDONSHIRE
FIRE BRIGADE AND CIVIL DEFENCE COMMITTEES.

PROPOSED THREE-BAY FIRE STATION, RAMSEY.

Contractors desirous of submitting a FIXED-PRICE TENDER for the above project are invited to submit their names to S. M. Holloway, A.R.I.B.A., County Architect, County Buildings, Huntingdon, by not later than 12 noon on MONDAY, 29th AUGUST, 1960. From the names submitted a panel of contractors will be selected to whom tender documents will be sent. The closing date for receipt of tenders will be notified later, but it is thought this will be towards the end of NOVEMBER.

The building will be a single-storey reinforced concrete framed structure on piles with infill panel construction of brickwork built from ground beams. The concrete frame and piled foundation will be nominated sub-contracts.

A. C. AYLWARD,
Clerk of the County Council.

County Buildings,
Huntingdon.
11th August, 1960.

WEST BROMWICH
COUNTY BOROUGH.

ERECTION OF 132 MAISONETTES.

TENDERS are invited for the ERECTION OF 132 MAISONETTES in blocks of four-storeys.

Bills of Quantities and Forms of Tender will be available on the 19th AUGUST, 1960. Tenders should be sent in a sealed envelope endorsed "Contract for 132 Maisonettes" to reach the undersigned not later than 12 noon, 16th SEPTEMBER, 1960.

The Council does not bind itself to accept the lowest (or any) tender.

W. H. GREENWOOD,
Borough Engineer and Surveyor.

Town Hall,
West Bromwich.
9th August, 1960.

CARDIFF CITY.

CITY ARCHITECT'S DEPARTMENT.
FIXED PRICE TENDERS are invited for the following works: Howardian High School for Boys, Colchester-avenue, Cardiff—NEW BICYCLE STORAGE AND PLAYING FIELD EQUIPMENT STORE.

Conditions of Contract, Drawings and Specification may be inspected at the City Architect's Department, Municipal Offices, Greyfriars-road, Cardiff.

Specifications, Drawings and Form of Tender may be obtained from the City Architect to whom application should be made accompanied by a deposit of £2 2s. Cheques should be made payable to the Cardiff Corporation and crossed "Not Negotiable and Co." The deposit will be refunded on receipt of a bona fide Tender or the return of the contract documents.

Tenders will not be considered unless enclosed in the envelope provided and endorsed "Tender for Howardian High School for Boys—Bicycle and Equipment Stores," addressed to the Town Clerk at the City Hall, Cardiff, and sent by Registered Post so as to be received not later than the 30th AUGUST, 1960.

The envelope must not bear the name of or any mark indicating the identity of the tenderer.

The Council does not bind itself to accept the lowest or any Tender.

S. TAPPER-JONES,
Town Clerk.

City Hall,
Cardiff.

WORSLEY
URBAN DISTRICT COUNCIL.

EXTENSIONS TO TOWN'S YARD, CHESTNUT-AVENUE, WALKDEN.
TENDERS are invited for the ERECTION of the following buildings:
(a) TWO-STOREY GARAGE BLOCK AND STORE, 111 ft. long x 31 ft. wide x 25 ft. high.
(b) SINGLE-STOREY REPAIR SHOP, 44 ft. long x 36 ft. wide x 25 ft. high.
(c) STORAGE BUILDINGS, 77 ft. long x 27 ft. wide x 17 ft. high.
(d) ALTERATIONS TO EXISTING BUILDINGS.

Forms of Tender and Bills of Quantities, etc., can be obtained from L. T. Broome, M.I.Mun.E., Engineer and Surveyor, upon receipt of a deposit of £2 2s. 2d., which will be returned upon receipt of a bona fide tender.

Plans and details can be inspected in the Surveyor's Dept., Town Hall, Walkden.

The tenders, which must be on a fixed-price basis, should be sent to the undersigned in a plain, sealed envelope endorsed "Town's Yard—Tender" on or before the 2nd SEPTEMBER, 1960.

The Council do not bind themselves to accept the lowest or any tender.

ROBERT E. HUBAND,
Clerk of the Council.

Town Hall,
Walkden,
Manchester.

STAINES
URBAN DISTRICT COUNCIL.

TOWN-LANE, STANWELL, MIDDLESEX.
ERECTION OF 36 DWELLINGS AND 44 GARAGES—SECTIONS D, E, F & G.
FIXED PRICE TENDERS are invited for the ERECTION OF 2 THREE-STOREY BLOCKS, EACH CONTAINING THREE FLATS AND SIX MAISONETTES, 4 PAIRS OF OLD PEOPLE'S BUNGALOWS, A TERRACE OF TEN HOUSES AND 44 GARAGES.

Bills of Quantities, Specification and Forms of Tender will be available from the 26th AUGUST and will be forwarded to the Applicants on receipt of a deposit of £2 2s. returnable upon the submission of a bona fide Tender not subsequently withdrawn and the return of all documents.

Tenders are to be returned in plain sealed envelopes endorsed "Tender—D, E, F & G, Town-lane," to the undersigned not later than 5 p.m. on FRIDAY, the 16th SEPTEMBER, 1960.

The Council does not bind itself to accept the lowest or any Tender.

F. ENTWISTLE,
Clerk of the Council.

HUNTINGDON
RURAL DISTRICT COUNCIL.

WATER MAINS AT GREAT STUKELEY.
TENDERS are invited from suitably experienced Contractors for the LAYING AND JOINTING of approximately 500 yards of 3 in. diameter ASBESTOS CEMENT WATER MAINS with screwed joints on a housing development site, together with ancillary works.

Drawings may be seen during office hours at the offices of the Consulting Engineers, Messrs. Pick, Everard, Keay & Gimson, 6 Millstone-lane, Leicester, from whom the Specification and Bill of Quantities may be obtained on payment of a deposit of Two Guineas which will be returned on receipt of a bona fide Tender.

Tenders on the loose form and in the envelope provided should be delivered to the undersigned not later than 10 o'clock in the FORENOON of WEDNESDAY, the 14th SEPTEMBER, 1960.

The Council do not bind themselves to accept the lowest or any Tender.

W. MIDWOOD
Clerk of the Council.

Council Offices,
Montagu House,
Huntingdon.

CHATHAM
BOROUGH.

ORDNANCE-STREET REDEVELOPMENT AREA—STAGE 2, PERRY-STREET AREA.
TENDER documents will shortly be available for the following dwellings in the Ordnance-street Redevelopment Area:
Group 1—12 ONE-BEDROOM FLATS, 3 STOREYS. 10 THREE-BEDROOM HOUSES.
Group 2 — 2 FOUR-BEDROOM HOUSES.

Contractors who wish to tender for one or both groups are invited to submit their names, not later than 1st SEPTEMBER, 1960, to Mr. J. A. T. Richards, Borough Engineer and Surveyor, stating the group they wish to tender for and enclosing a deposit of 2 guineas for each group, which will be returned on receipt of bona fide tender or tenders.

Tenders, which will be considered separately, must be received by the undersigned not later than mid-day on MONDAY, 3rd OCTOBER, 1960.

The Council do not bind themselves to accept the lowest or any tender.

ROWLAND NEWNES,
Town Clerk.

Town Hall,
Chatham.
August, 1960.

NORTHAMPTONSHIRE
COUNTY COUNCIL.

WELLINGBOROUGH NEW FIRE STATION, AMBULANCE DEPOT AND CIVIL DEFENCE TRAINING CENTRE.
Contractors wishing to TENDER for (a) ERECTION IN PARTLY TWO-STOREY, STEEL FRAME AND LOAD-BEARING BRICKWORK CONSTRUCTION, or (b) ELECTRICAL INSTALLATION, are asked to notify the County Architect, County Hall, Northampton, by TUESDAY, 30th AUGUST. From the names received the committee concerned will select firms to whom particulars will be sent.

J. ALAN TURNER,
Clerk of the County Council.

County Hall,
Northampton.

BEDFORDSHIRE
EDUCATION COMMITTEE.

BUILDING CONTRACT.
Building Contractors who wish to be considered to TENDER on the basis of a FIXED-PRICE CONTRACT (approximate value £18,000) for the ERECTION OF A SINGLE-STOREY EXTENSION, IN TRADITIONAL CONSTRUCTION, TO THE KITCHEN AND DINING ACCOMMODATION together with ALTERATIONS to existing premises at the Bedford College of Physical Education, Lansdowne-road, should submit their names to the County Architect, Shire Hall, Bedford, by 29th AUGUST, 1960.

Bills of Quantities will be issued to the Contractors selected to tender.

Heating Engineer and Electrical Contractors are also invited to submit their names by the above date for consideration to TENDER for the undermentioned sub-contracts in connection with the above:
(a) ENGINEERING SERVICES.
(b) ELECTRICAL INSTALLATION.

The Committee does not bind itself to accept the lowest or any tender.

NORTH RIDING
EDUCATION COMMITTEE.

TO BUILDERS AND CONTRACTORS.

Bills of Quantities, etc., for ERECTION OF 2nd INSTALMENT OF COUNTY PRIMARY SCHOOL at Huntington, near York, obtainable from me or Architects, W. W. Atkinson & Partners, 4 Raymond Buildings, Gray's Inn, London, W.C.1. Plans may be seen at the County Hall, Northallerton. Completed tenders in official envelope must arrive not later than FRIDAY, 16th SEPTEMBER, with postmark not later than 15th SEPTEMBER, 1960. Envelope must be sealed and have no mark indicating tenderer. Lowest or any tender not necessarily accepted.

C. BARRACLOUGH, County Hall, Northallerton.

EAST RIDING OF YORKSHIRE
COUNTY COUNCIL.

TENDERS are invited for the ERECTION OF TWO DETACHED HOUSES on the site of the new County Secondary School at Filey.

Forms and conditions of tender, conditions of contract, specification, and Bills of Quantities may be obtained from the County Architect, County Hall, Beverley, on payment of a deposit of Two Pounds, which will be returned to any bona fide tenderer who returns the documents requested and whose Tender is not withdrawn. Deposits will be returned after a contract has been sealed. Cheques, etc., should be made payable to the "East Riding County Council."

It is anticipated that the Tender documents will be available on 30th AUGUST, 1960, and Tenders should be returned to the Clerk of the Council by 4 p.m. TUESDAY, 20th SEPTEMBER, 1960.

THOMAS STEPHENSON,
Clerk of the Council.

CARDIFF CITY.

CITY ARCHITECT'S DEPARTMENT.
TEACHER TRAINING COLLEGE, CYNCOED.
FIXED ART AND CRAFT ROOM AND LABORATORY FURNITURE.
FIXED-PRICE TENDERS are invited for the SUPPLY, DELIVERY AND ASSEMBLY IN POSITION OF FIXED ART AND CRAFT ROOM AND LABORATORY FURNITURE, etc., at the proposed Teacher Training College, Cyncoed, Cardiff.

Conditions of Contract, Drawings and Specification may be inspected at the City Architect's Department, Municipal Offices, Greyfriars-road, Cardiff.

Specification, Drawings and Form of Tender may be obtained from the City Architect to whom application should be made, accompanied by a deposit of £2 2s. Cheques should be made payable to the Cardiff Corporation and crossed "Not negotiable and Co." The deposit will be refunded on receipt of a bona fide tender or the return of the contract documents.

Tenders will not be considered unless enclosed in the envelope provided and endorsed "Tender for Teacher Training College, Laboratory Furniture" addressed to the Town Clerk at the City Hall, Cardiff, and sent by REGISTERED POST so as to be received not later than the 30th AUGUST, 1960.

The envelope must not bear the name of or any mark indicating the identity of the Tenderer.

The Council does not bind itself to accept the lowest or any Tender.

S. TAPPER-JONES,
Town Clerk.

City Hall,
Cardiff.
August, 1960.

MALVERN
URBAN DISTRICT COUNCIL.

EXTENSIONS AND ALTERATIONS TO PRIORY PARK SWIMMING POOL.
FIXED-PRICE TENDERS are invited for the CONSTRUCTION OF A NEW BUILDING, comprising changing accommodation and ancillaries, together with an extension to the filter house, provision of a small training pool, alterations and repairs to existing building and swimming pool.

Drawings, Specification, Bills of Quantities and Form of Tender may be obtained from Mr. C. C. Judson, Surveyor and Water Engineer, The Council House, Malvern, on payment of a deposit of five guineas, which will be returned after receipt of a bona fide Tender.

Tenders on the prescribed form, in the envelope supplied, must be delivered to the undersigned not later than noon on the 16th SEPTEMBER, 1960.

The Council do not bind themselves to accept the lowest or any tender.

J. BULMAN,
Clerk of the Council.

The Council House,
Malvern.
10th August, 1960.

CARDIFF CITY.

CITY ARCHITECT'S DEPARTMENT.
ERECTION OF 219 LOCK-UP GARAGES AND SITEWORKS ON VARIOUS SITES.
FIXED-PRICE TENDERS are invited for the ERECTION OF A TOTAL OF 219 LOCK-UP GARAGES AND SITE WORKS in eight contracts as follows:
Contract 1—48 GARAGES, Heol Trelai, Ely South.
Contract 2—6 GARAGES, Blue House-road, Llanishen; 27 GARAGES, Whitebarn-road, Llanishen.
Contract 3—14 GARAGES, Llandudno-road, Rumney.
Contract 4—14 GARAGES, Honiton-road, Llanrumney; 18 GARAGES, Burnham-avenue, Llanrumney; 23 GARAGES, Porlock-road, Llanrumney.
Contract 5—10 GARAGES Sudcroft-street, Leckwith.
Contract 6—14 GARAGES, Lydstep-crescent, Gabalfa.
Contract 7—24 GARAGES, Hirst-crescent, Fairwater.
Contract 8—21 GARAGES, Deere Wilson-road, Ely North.

Contractors may tender for one or more contracts, but each contract must be tendered for separately.

Conditions of Contract, Drawings and Specification may be inspected at the City Architect's Department, Municipal Offices, Greyfriars-road, Cardiff.

Specification, Drawings and Form of Tender may be obtained from the City Architect to whom application should be made, accompanied by a deposit of £2 2s., in respect of each contract. Cheques should be made payable to the Cardiff Corporation and crossed "Not negotiable and Co." The deposit will be refunded on receipt of a bona fide tender or the return of the contract documents.

Tenders will not be considered unless enclosed in the envelope provided and endorsed "Tender for . . . Garages—Contract No. . . ." (as the case may be), addressed to the Town Clerk at the City Hall, Cardiff, and sent by REGISTERED POST so as to be received not later than the 13th SEPTEMBER, 1960.

The envelope must not bear the name of or any mark indicating the identity of the Tenderer.

The Council does not bind itself to accept the lowest or any Tender.

S. TAPPER-JONES,
Town Clerk.

City Hall,
Cardiff.
August, 1960.

PORT TALBOT
BOROUGH.

BOROUGH ENGINEER'S DEPARTMENT.
NEW WOODWORKING MACHINERY.
TENDERS are invited for the SUPPLY of the following power operated woodworking machinery:—
1. MORTICING MACHINE to take Chisels up to 1 inch;
2. BAND SAWS with up to 1½ inch blade.

Tenders with illustrations and specifications in plain envelope, endorsed "Woodworking Machinery," to reach the undersigned by FRIDAY, 9th SEPTEMBER, 1960.

W. KING DAVIES,
Town Clerk.

Municipal Buildings,
Port Talbot.
10th August, 1960.

SOUTHAMPTON
COUNTY BOROUGH.

Southampton C.B.C. invites TENDERS for the following contracts on Bills of Quantities available in SEPTEMBER.
Contract B. 353—20 TRADITIONAL HOUSES, Surrey House.
Contract B. 342—17 TRADITIONAL HOUSES, Bitterne-road/Bath-road.
Contract B. 343—THREE BLOCKS OF FOUR - STOREY TRADITIONAL FLATS, TYPE "P" (14 flats per block), Bitterne-road/Bath-road.

Applications for tender documents should be received by the Borough Engineer, Civic Centre, Southampton, by 10 a.m. on TUESDAY, 6th SEPTEMBER, 1960.

ABERYSTWYTH
BOROUGH COUNCIL.

ERECTION OF FLATS.
FIXED, LUMP-SUM TENDERS are invited for the ERECTION AND COMPLETION OF TWO BLOCKS OF FOUR, TWO-STOREY FLATS in traditional construction together with DRAINS, SERVICES, ACCESS ROAD and FOOTWAYS AND ALL OTHER ANCILLARY WORKS, on a site between Fourth and Fifth-avenues, Penparcau, Aberystwyth.

Specifications, Form of Tender and Plans may be obtained from the Borough Surveyor and Water Engineer, Public Works Department, Park-avenue, Aberystwyth, on payment of a deposit of £3 3s., which will be refunded upon receipt of a bona fide tender for the works or the return of all documents supplied.

Tenders must be delivered to the undersigned not later than twelve noon on MONDAY, 19th SEPTEMBER, 1960, in the envelope provided.

The Council do not bind themselves to accept the lowest or any tender.

W. PHILIP DAVIES,
Town Clerk.

Town Hall,
Aberystwyth.
11th August, 1960.

RICHMOND (SURREY)
BOROUGH.

REBUILDING OF CORPORATION DEPOT, PHASE I.
TENDERS are invited for Phase I of the above rebuilding scheme.

This phase consists of the demolition and rebuilding of Stores and Offices, etc., along Lower Mortlake-road frontage of the Depot.

Drawings may be inspected at the Borough Engineer's Office, King's-road, Richmond, and Tender Documents will be available on application to that address on or after 25th AUGUST, 1960, upon payment of a deposit of 5 gns., which will be refunded upon receipt of a bona fide tender not subsequently withdrawn.

Tenders, sealed in envelopes provided, endorsed "Tender, Phase I, Rebuilding Corporation Depot," must reach the undersigned not later than noon on THURSDAY, 22nd SEPTEMBER, 1960.

The Council do not bind themselves to accept the lowest or any tender.

CLIFFORD HEYWORTH,
Town Clerk.

Town Hall,
Richmond,
Surrey.

SHREWSBURY
BOROUGH.

ERECTION OF HOUSES AND FLATS AND A SHOP.
TENDERS are invited for a FIXED-PRICE CONTRACT for the ERECTION OF 12 FLATS IN THREE STOREYS, 12 THREE-STOREY HOUSES AND ONE SHOP WITH MAISONETTE OVER at New-street, Shrewsbury.

Specifications, drawings, bills of quantities and forms of tender may be obtained from, and conditions of contract may be seen during office hours at the office of the Borough Surveyor, Guildhall, Shrewsbury, on and after 31st AUGUST, on payment of £2 2s., which will be returned on receipt of a bona fide tender and the remaining documents.

Tenders on the prescribed form, sealed in the envelope provided and bearing no mark of identification are to be received by the undersigned not later than 10 a.m. on WEDNESDAY, 21st SEPTEMBER, 1960.

The Council do not bind themselves to accept the lowest or any other tender.

S. R. H. LOXTON,
Town Clerk.

Guildhall,
Shrewsbury.
August, 1960.

The ceiling that lights

A Lumenated Module installation in the showroom of Middlesex Motors, Stanmore. ARCHITECTS: *Tubbs, Duncan & Osborn,* A.R.I.B.A.

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ESSEX
COUNTY COUNCIL.

ORSETT C. OF E. (AIDED) PRIMARY SCHOOL.
ADAPTATIONS AND ACCESS ROAD.
Contractors wishing to submit a FIRM PRICE TENDER for the above should forward their names, from which a panel will be chosen and provided with Tender documents.
The work consists of ADAPTATIONS TO PROVIDE A NEW KITCHEN AND STAFF ROOM AND AN ACCESS ROAD, estimated cost £2,800. The private architect for this contract is F. H. Saunders, 9 Palmers-avenue, Grays.
Applications to reach the undersigned not later than 27th AUGUST, 1960.
H. CONOLLY, C.B.E., F.R.I.B.A.,
County Architect.
County Hall,
Chelmsford.

CARDIFF CITY.
CITY ARCHITECT'S DEPARTMENT.
TENDER FOR THE ERECTION OF 70 DWELLINGS AT VARIOUS SITES IN CARDIFF.
FIXED-PRICE TENDERS are invited for the CONSTRUCTION OF SUPERSTRUCTURE only of the following dwellings on existing foundations in three contracts.
Group 1 — 46 SINGLE-BEDROOM FLATS in 1 two- and 1 three-storey blocks, Shaw-close, Llanrumney.
Group 2 — 2 THREE-BEDROOM HOUSES, Hazlett-close, Llanrumney.
Group 3 — 22 SINGLE-BEDROOM FLATS in 2 two-storey blocks, Maitland-place, Grangetown.
Contractors may tender for one or more contracts but each contract must be tendered for separately.
Conditions of Contract, Drawings and Specifications may be inspected at the City Architects Department, Municipal Offices, Greyfriars-road, Cardiff.
Drawings, Bills of Quantities and Form of Tender may be obtained from the City Architect to whom application should be made, accompanied by a deposit of £2 2s., for each contract. Cheques should be made payable to the Cardiff Corporation and crossed "Not negotiable and Co." The deposit will be refunded on receipt of a bona fide tender or the return of the contract documents.
Tenders will not be considered unless enclosed in the envelope provided and endorsed "Tender for . . . . Dwellings at . . ." (as the case may be) to the Town Clerk at the City Hall, Cardiff, and sent by REGISTERED POST so as to be received not later than the 13th SEPTEMBER, 1960.
The envelope must not bear the name of or any mark indicating the identity of the Tenderer.
Completed Bills of Quantities must not be submitted with the Tender but must be sent, completed in ink, so as to be in the hands of the City Architect within three days after written request following the opening of Tenders.
The Council does not bind itself to accept the lowest or any Tender
S. TAPPER-JONES,
Town Clerk.
City Hall,
Cardiff.
August, 1960.

ESSEX
COURT OF QUARTER SESSIONS AND COUNTY COUNCIL OF ESSEX.

(1) POLICE HOUSE, Collier Row-lane, Romford.
(2) POLICE HOUSE AND OFFICE, Felsted.
Contractors wishing to submit FIRM-PRICE TENDERS for the ERECTION of the above should forward their names, from which panels will be chosen and provided with tender documents.
The houses will be in traditional construction, estimated costs:
(1) £2,500; (2) £3,175.
Separate applications to reach the undersigned not later than 27th AUGUST, 1960.
H. CONOLLY, C.B.E., F.R.I.B.A.,
County Architect.
County Hall,
Chelmsford.

SHREWSBURY
BOROUGH.

ERECTION OF HOUSES, BUNGALOWS, FLATS, GARAGES AND A SHOP.
TENDERS are invited for a FIXED PRICE CONTRACT for the ERECTION OF 67 DWELLINGS, 19 GARAGES AND 1 SHOP at Ditherington, Shrewsbury.
Specifications, drawings, bills of quantities and forms of tender may be obtained from, and conditions of contract may be seen during office hours at the office of the Borough Surveyor, Guildhall, Shrewsbury, on and after 31st AUGUST, on payment of £2 2s. which will be returned on receipt of a bona fide Tender and the remaining documents.
Tenders on the prescribed form, sealed in the envelope provided and bearing no mark of identification, are to be received by the undersigned not later than 10 a.m. on WEDNESDAY, 21st SEPTEMBER, 1960.
The Council do not bind themselves to accept the lowest or any other Tender.
S. R. H. LOXTON,
Town Clerk.
Guildhall,
Shrewsbury.
August, 1960.

HARROW
BOROUGH.

ERECTION OF PUBLIC CONVENIENCE.
TENDERS are invited for the ERECTION OF A PUBLIC CONVENIENCE in Honeypot-lane, Queensbury, fronting the Old Isolation Hospital.
Plans and Conditions of Contract may be inspected at the office of, and a copy of the Form of Tender, Specification, and Bill of Quantities obtained on application to, the Borough Engineer and Surveyor at the Council Offices, "Cottesmore," 48 Uxbridge-road, Stanmore, Middlesex, on payment of Two Pounds by crossed cheque made payable to Harrow Corporation, returnable where a bona fide Tender reaches me within the prescribed time.
Tenders, on the prescribed form, together with the priced and sealed Bill of Quantities which will be opened in the case of the lowest Tenders only, enclosed in plain sealed envelopes bearing no indication of the sender and endorsed "Erection of Public Convenience, Queensbury," to be delivered to my office not later than 10 a.m. on TUESDAY, 27th SEPTEMBER, 1960.
The Corporation does not bind itself to accept the lowest, or any, Tender.
D. H. PRITCHARD,
Town Clerk.
Town Clerk's Office,
Harrow Weald Lodge,
92 Uxbridge-road,
Harrow,
Middlesex.

SHREWSBURY
BOROUGH.

ERECTION OF HOUSES, BUNGALOWS, SHOPS AND GARAGES.
TENDERS are invited for a FIXED PRICE CONTRACT for the ERECTION OF 6 HOUSES, 2 BUNGALOWS, 2 SHOPS, 19 GARAGES, AND ALTERATIONS to Monkmoor Hall Farm to provide new dairy and calf boxes. The works are on several sites, all in the Crowmoor district.
Specifications, drawings, bills of quantities and forms of tender may be obtained from, and conditions of contract may be seen during office hours at the office of the Borough Surveyor, Guildhall, Shrewsbury, on and after 31st AUGUST, on payment of £2 2s. which will be returned on receipt of a bona fide Tender and the remaining documents.
Tenders on the prescribed form, sealed in the envelope provided and bearing no mark of identification, are to be received by the undersigned not later than 10 a.m. on WEDNESDAY, 21st SEPTEMBER, 1960.
The Council do not bind themselves to accept the lowest or any other Tender.
S. R. H. LOXTON,
Town Clerk.
Guildhall,
Shrewsbury.
August, 1960.

EAST SUFFOLK
COUNTY COUNCIL.

COOKLEY AND WALPOLE V.C.P. SCHOOL—
ALTERATIONS AND EXTENSIONS.
The Council propose to invite FIRM PRICE TENDERS from selected builders, for ALTERATIONS TO THE EXISTING BUILDING and the ERECTION OF EXTENSIONS of some 3,000 square feet floor area.
Drawings, prepared under the direction of Mr. E. J. Cundliffe, A.R.I.B.A., County Architect, can be seen at the County Hall, Ipswich, between 9 a.m. and 4 p.m.
Building Contractors wishing to tender should submit their names to the County Architect, County Hall, Ipswich, before the 2nd SEPTEMBER, 1960. From the names submitted a number of builders will be selected and these will be furnished with Bills of Quantities, etc., on or about the 9th SEPTEMBER; builders not selected will be notified at the same time. Tenders are required by the 7th OCTOBER, 1960.

HITCHIN
URBAN DISTRICT COUNCIL.

ERECTION OF HOUSES AND FLATS.
The Council invite FIXED-PRICE TENDERS for the ERECTION OF 58 SINGLE-BEDROOM FLATS in two- and three-storey blocks, THREE PAIRS OF TWO-BEDROOM, EIGHT PAIRS OF THREE-BEDROOM, and TWO BLOCKS OF FOUR THREE - BEDROOM HOUSES, on their Westmill Estate, Hitchin.
Applications for Bills of Quantities and Form of Tender accompanied by a deposit of £3 3s. (returnable after receipt of a bona fide tender not subsequently withdrawn), should be received by the Council's Surveyor by 29th AUGUST, 1960, at the undermentioned address, where plans and General Conditions of Contract may be inspected after that date.
Tenders and the priced Bills of Quantities should be sent in the envelope provided (which must bear no mark indicating the sender) so as to reach me not later than NOON on WEDNESDAY, 5th OCTOBER, 1960.
The Council do not bind themselves to accept the lowest or any tender.
W. WILSON,
Clerk of the Council.
Council Offices,
Brand-street,
Hitchin,
Herts.

SHEFFIELD
REGIONAL HOSPITAL BOARD.

BALDERTON HOSPITAL, NEWARK.
DEVELOPMENT—PHASE II.
CHILDREN'S GROUP.
The Board proposes to invite TENDERS from selected contractors for work estimated to cost in the region of £180,000.
It is anticipated that Tender documents will be available during September, 1960, and that work will commence during January, 1961. The work is required to be completed within eighteen months.
Building contractors wishing to tender should submit their names to Mr. E. F. Wilson, A.R.I.B.A., Fulwood House, Old Fulwood-road, Sheffield, 10, within TWO WEEKS from the date of this advertisement.
From the names submitted a number will be selected to receive Bills of Quantities, etc. Contracts not selected will be notified at the same time.

CAMBRIDGE CITY.

ARBURY-ROAD HOUSING ESTATE (NORTH).
ERECTION OF 49 HOUSES (CONTRACT 103).
ERECTION OF 14 HOUSES AND 32 TWO-STOREY OLD PEOPLE'S FLATS (CONTRACT 105).
FIXED PRICE TENDERS are invited for the ERECTION OF THE ABOVE-MENTIONED DWELLINGS. Tenders may be submitted in respect of one or both contracts.
Applications for Tender documents, accompanied by a deposit of 2 guineas in respect of each contract, should be made to the City Surveyor, The Guildhall, Cambridge, not later than the 26th AUGUST. Tenders are to be submitted by 19th SEPTEMBER, 1960.
The Council does not bind itself to accept the lowest or any Tender.
ALAN H. I. SWIFT,
Town Clerk.
The Guildhall,
Cambridge.

HARROW
BOROUGH.

HARROW WEALD COUNTY GRAMMAR SCHOOL, BROOKSHILL, HARROW WEALD.
TENDERS are invited for the TAKING DOWN AND RE-BUILDING THE CORRIDOR AND PORCH (North Side) of the above-mentioned School.
Conditions of Contract may be inspected at the office of, and a copy of the Form of Tender, Specification and Drawing obtained on application to, the Borough Engineer and Surveyor at the Council Offices, "Cottesmore," 48 Uxbridge-road, Stanmore, Middlesex, on payment of Two Pounds by crossed cheque made payable to the Harrow Corporation, returnable where a bona fide tender reaches me within the prescribed time.
Tenders, on prescribed forms, enclosed in a plain envelope bearing no indication of the sender and carrying the label provided, to be delivered to my office not later than 10 a.m. on TUESDAY, 20th SEPTEMBER, 1960.
The Council do not bind themselves to accept the lowest or any Tender.
D. H. PRITCHARD,
Town Clerk.
Council Offices,
Harrow Weald Lodge,
Harrow.

BEDFORD
BOROUGH.

NEWNHAM BATHS IMPROVEMENT—CONTRACT NO. 3.
ADDITIONAL CHANGING AND CLOTHES STORAGE ACCOMMODATION.
TENDERS are invited for the ERECTION OF ADDITIONAL CHANGING AND CLOTHES STORAGE ACCOMMODATION which is to be sited immediately behind the existing changing block.
Applications for Tender documents should be made to F. W. Dawkes, Esq., Borough Engineer and Surveyor, Newnham House, Horne-lane, Bedford, accompanied by a deposit of £2 2s. which is returnable on receipt of a bona fide Tender not subsequently withdrawn.
Drawings and Conditions of Contract may be inspected at the office of the Borough Engineer during usual office hours.
Tenders, in plain sealed envelopes endorsed "Additional Changing Accommodation," must be delivered to the undersigned not later than 10 a.m. on WEDNESDAY, 7th SEPTEMBER.
The Council do not bind themselves to accept the lowest or any Tender.
G. F. SIMMONDS,
Town Clerk.
Town Hall,
Bedford.

CHISLEHURST AND SIDCUP
URBAN DISTRICT COUNCIL.

ERECTION OF 12 FLATS, WINDSOR-ROAD, FOOTSCRAY.
Contractors wishing to TENDER should apply immediately to Engineer and Surveyor, Manor House, Sidcup, enclosing £2 2s., refundable on receipt of bona fide tender not subsequently withdrawn. Bills of Quantity will be despatched early in SEPTEMBER.
T. W. FAGG,
Clerk of the Council.
Council Offices,
Sidcup Place,
Sidcup.

BIRMINGHAM CITY.
TO BUILDING CONTRACTORS.

CONTRACT 704—8 TWO-STOREY DWELLINGS, GLEBE FARM-ROAD, STECHFORD.
CONTRACT 714—12 ONE- AND TWO-STOREY DWELLINGS, BELL HOLLOWAY ESTATE, NORTHFIELD.
The House Building Committee invite FIRM PRICE TENDERS for the ERECTION OF THE ABOVE.
Bills of Quantities and Forms of Tender will be forwarded on payment of £2 2s. for each contract at the office of A. G. Sheppard Fidler, City Architect, Civic Centre, Birmingham, 1, to whom all cheques should be made payable. Applications should be made by 23rd AUGUST, 1960. Conditions of Contract (which include the usual Fair Wages and Conditions of Labour Clause) may be seen at the City Architect's office during normal working hours.
The deposits will be returned on receipt of bona fide Tenders or on notification of inability to tender, together with the return of the documents not later than THREE DAYS before the date for receipt of Tenders.
Tenders enclosed in the envelopes provided for the purpose, must be sealed and delivered to the Town Clerk's Office (Room No. B.31), Council House, Birmingham, 1, not later than 12 NOON on FRIDAY, the 23rd SEPTEMBER, 1960. Tenders received after that time will be rejected.
The Committee do not bind themselves to accept the lowest or any Tender.
T. H. PARKINSON,
Town Clerk.
The Council House,
Birmingham, 1.
10th August, 1960.

DURHAM
COUNTY COUNCIL.

TENDERS invited:—
Cambridge House Hostel, Barnard Castle. ALTERATIONS.
Greenfield Estate, Swalwell. ERECTION OF STANDARD POLICE HOUSES, GARAGES AND STORES.
Application for further details to County Architect, South-street, Durham, not later than 31st AUGUST, 1960.
J. K. HOPE,
Clerk of the County Council.
Shire Hall,
Durham.

SUNDERLAND
EDUCATION AUTHORITY.

BEDE GRAMMAR SCHOOLS—KITCHEN DINING ROOM.
TENDERS are invited for the MECHANICAL ENGINEERING SERVICES required in connection with the above project.
Tender documents may be obtained from S. W. Milburn & Partners, 9 The Esplanade, Sunderland. Sealed Tenders, to be returned in the envelope provided, should be delivered to The Town Clerk, Town Hall, Sunderland, not later than WEDNESDAY, 14th SEPTEMBER, 1960.
G. S. McINTIRE,
Town Clerk.

SHEFFIELD
REGIONAL HOSPITAL BOARD.

ASTON HALL HOSPITAL, ASTON ON TRENT, DERBYS.
DEVELOPMENT.
The Board proposes to invite TENDERS from selected contractors for the next stage of this work, which comprises FOUR VILLA BLOCKS AND TWO PATIENTS' WORKSHOPS, estimated to cost in the region of £200,000.
It is anticipated that Tender documents will be available during October, 1960, and that work will commence early in 1961. The work is required to be completed within eighteen months.
Building contractors wishing to tender should submit their names to Mr. E. F. Wilson, A.R.I.B.A., Fulwood House, Old Fulwood-road, Sheffield, 10, within TWO WEEKS from the date of this advertisement.
From the names submitted a number will be selected to receive Bills of Quantities, etc. Contracts not selected will be notified at the same time.

HEMEL HEMPSTEAD
BOROUGH.

SEATON-ROAD, RUNHAM-ROAD AND WOOD-CRESCENT—REAR DIVISION FENCING.
TENDERS are invited for the SUPPLY AND ERECTION of approximately 2,800 yards of 3 ft. high CLEFT CHESTNUT FENCING on driven stakes, including the removal and disposal of existing dilapidated fencing, to 69 Council Houses in Seaton-road, Runham-road and Wood-crescent.
The specification and form of tender may be obtained from A. H. Turner, A.M.I.C.E., Borough and Water Engineer, High-street, Hemel Hempstead, Herts., at whose office the General Conditions of Contract and the plan may be inspected.
Tenders, in plain sealed envelopes endorsed "Rear Division Fencing", bearing no name or indication of the sender, must be delivered to me not later than 12 NOON on FRIDAY, the 30th SEPTEMBER, 1960.
C. W. G. T. KIRK,
Town Clerk.
Town Hall,
High-street,
Hemel Hempstead,
Herts.
August, 1960.

BUCKS
WATER BOARD.

PROPOSED OFFICE EXTENSIONS AND NEW WORKSHOPS, AYLESBURY.

Contractors are invited to apply to be included in the list of those TENDERING for the works required in connection with the construction of the above. The works comprise the following:

OFFICES, two-storey, 9,200 sq. ft.
WORKS, single-storey, 8,800 sq. ft.
No. 3 HOUSES, CAR PARKS, ROADS, etc.

Applications accompanied by a £5 deposit payable to the Bucks Water Board (returnable on receipt of a bona fide Tender) should be sent to the Architects, Messrs. Raymond White and Ridley, F./A.R.I.B.A., 4 Temple-square, Aylesbury, not later than 22nd AUGUST, 1960.

Forms of Tender and Bills of Quantities for the office section will be available on the 29th AUGUST, 1960, and Bills of Quantities for the remainder on the 5th SEPTEMBER, 1960. Tenders are to be returned in the envelopes provided marked "New Extensions" to H. A. Foley, Esq., Clerk of the Board, at 7 Temple-square, Aylesbury, Bucks, not later than 12 noon on 26th SEPTEMBER, 1960.

HUNTINGDON
RURAL DISTRICT COUNCIL.

TENDERS FOR BUNGALOWS, FLATS AND ROADWORKS.

TENDERS on a fixed-price basis are invited for the ERECTION OF TWELVE BUNGALOWS AND EIGHT FLATS with associated roadworks at Brampton.

Bills of Quantities and forms of tender may be obtained from the Council's Surveyor, at the undermentioned address, on deposit of £2 2s., which will be returned on receipt of a bona fide tender.

Tenders should be returned in the envelopes provided to us to reach me not later than noon on WEDNESDAY, 14th of SEPTEMBER.

The Council does not bind itself to accept the lowest or any tender and final acceptance will be subject to the approval of the Ministry of Housing and Local Government.

W. MIDWOOD,
Clerk of the Council.

Montagu House,
Huntingdon.
August, 1960.

CARDIFF CITY.

CITY ARCHITECT'S DEPARTMENT.
TEACHER TRAINING COLLEGE, CYNCOED.
GYMNASIA EQUIPMENT.

FIXED-PRICE TENDERS are invited for the SUPPLY, DELIVERY AND FIXING OF GYMNASIA EQUIPMENT at the proposed Teacher Training College, Cyncoed, Cardiff.

Conditions of Contract, Drawings and Specification may be inspected at the City Architect's Department, Municipal Offices, Greyfriars-road, Cardiff.

Specification, Drawings and Form of Tender may be obtained from the City Architect to whom application should be made, accompanied by a deposit of £2 2s. Cheques should be made payable to the Cardiff Corporation and crossed "Not negotiable and Co." The deposit will be refunded on receipt of a bona fide tender or the return of the contract documents.

Tenders will not be considered unless enclosed in the envelope provided and endorsed "Tender for Teacher Training College, Gymnasia Equipment" addressed to the Town Clerk at the City Hall, Cardiff, and sent by REGISTERED POST so as to be received not later than the 30th AUGUST, 1960.

The envelope must not bear the name of or any mark indicating the identity of the Tenderer.

The Council does not bind itself to accept the lowest or any Tender.

S. TAPPER-JONES,
Town Clerk.

City Hall,
Cardiff.
August, 1960.

NORTHFLEET
URBAN DISTRICT COUNCIL.

TENDERS FOR HOUSES.

TENDERS are invited for the ERECTION OF 12 HOUSES (traditional brick construction) on the Painters Ash Estate, Northfleet, Kent.

The Conditions of Contract will be those of the R.I.B.A. (except Clause 25a fluctuations) which can be seen at the Town Hall, Northfleet, at any time during normal office hours.

Bills of Quantities and Form of Tender can be obtained from the Engineer and Surveyor at the address below on payment of a deposit of two guineas, which will be returned on receipt of a bona fide tender which is not subsequently withdrawn.

Tenders in plain sealed envelopes endorsed "Tender for Houses" and bearing no name or mark indicating the sender, must reach the undersigned not later than 12 noon on the 12th SEPTEMBER, 1960. The priced Bills of Quantities should be enclosed in a separate sealed envelope.

The Council do not bind themselves to accept the lowest or any Tender.

DREWERY F. BUNKALL,
Clerk of the Council.

Town Hall,
Northfleet,
Kent.
August, 1960.

HAMPSHIRE
COUNTY COUNCIL.

EASTLEIGH, NORTH END COUNTY SECONDARY SCHOOL.
EXTENSION AND ALTERATIONS INCLUDING NEW TWO-STOREY PRACTICAL BLOCK, ASSEMBLY HALL, KITCHEN, TWO-STOREY CLASSROOM WING.

TENDERS will shortly be invited for this work, the area of the new building being approximately 20,500 sq. ft. with, in addition, alterations forming science laboratory, gymnasium, changing rooms, boiler house extension and three teaching spaces.

Builders wishing to tender should apply to the Architect, Messrs. Jackson & Greenen, Hinton Buildings, Hinton-road, Bournemouth, with a deposit of £2 2s. payable by cheque to the County Treasurer, before noon on FRIDAY, 9th SEPTEMBER, 1960. The deposit will be refunded on receipt of a bona fide tender or the return of the documents.

Tender documents will be available during the week beginning 12th SEPTEMBER, and tenders are to be delivered to the Clerk of the County Council, The Castle, Winchester, four weeks from the date of issue.

The County Council does not bind itself to accept the lowest or any tender.

G. A. WHEATLEY,
Clerk of the County Council.

TOTTENHAM
BOROUGH.

DISPLAY BOARDING IN SCHOOLS.

TENDERS are invited for the following work:

(a) SUPPLY AND DELIVERY to various Schools in the Borough of SUNDEALA BOARDING.
(b) SUPPLY AND FIXING OF SUNDEALA BOARDING FOR DISPLAY PURPOSES.

Conditions of Contract, Specification and Form of Tender are obtainable from the Borough Engineer and Surveyor, Town Hall, Tottenham, N.15.

Tenders should be delivered in the envelopes provided to the undersigned, not later than 10 a.m. on THURSDAY, 1st SEPTEMBER, 1960. The Council do not bind themselves to accept the lowest or any tender.

CARMARTHENSHIRE AND CARDIGANSHIRE
JOINT POLICE AND FIRE AUTHORITIES.

TO BUILDERS AND CONTRACTORS.

TENDERS are invited for the ERECTION OF 9 PAIRS OF SEMI-DETACHED POLICE HOUSES AND 1 PAIR FIRE OFFICER'S HOUSES including construction of Estate Road at Penybont, Nr. Penparcau, Aberystwyth.

Bills of Quantities may be obtained from the County Architect, upon deposit of £3 3s., which is returnable on receipt of a bona fide tender not subsequently withdrawn. Cheques to be made payable to the Treasurer of the Joint Police/Fire Authorities.

Tenders are to be returned to W. S. Thomas, Esq., Clerk of the Joint Police and Fire Authorities, County Hall, Carmarthen, by 12 noon on 17th SEPTEMBER, 1960.

The lowest or any tender will not necessarily be accepted and no expenses incurred by those tendering will be defrayed.

GEORGE R. BRUCE,
County Architect.

County Hall,
Aberaeron,
Cardiganshire.
August, 1960.

ATTENTION ADVERTISERS

Classified advertisements in this section can be accepted up to 12 o'clock noon on the TUESDAY prior to issue. It is regretted that advertisements cannot be accepted by telephone.

PUBLIC APPOINTMENTS

LANCASHIRE
COUNTY COUNCIL.

COUNTY ARCHITECT'S DEPARTMENT.
SENIOR ASSISTANT ARCHITECTS, £1,320 to £1,485 according to experience.

Applications are invited from experienced, registered architects to deal with a wide variety of buildings, including Magistrates' Courts, Police Training Schools and Technical Colleges.

Application Forms and details of appointment from: The County Architect, P.O. Box 26, County Hall, Preston, returnable by 2nd SEPTEMBER, 1960, quoting reference A/B.

HARROW
BOROUGH.

Applications are invited for the following appointments in the Department of the Borough Engineer and Surveyor:

CHIEF TECHNICAL ASSISTANT (MAINTENANCE). A.P.T. Grade IV (£1,065 to £1,220 per annum, plus London "Weighting").

Applicants should be suitably qualified and experienced to organise both routine and long-term maintenance improvements and service installation works on approximately 5,000 dwellings, together with all municipal properties (except Schools).

The person appointed will be responsible for works carried out by direct labour (under a Works Superintendent) and by Contract.

BUILDING SURVEYORS. A.P.T. Grade III (£880 to £1,065 per annum, plus London "Weighting") for works of maintenance and improvements to Municipal properties, chiefly Schools.

Applicants must possess a sound knowledge of building construction and services, and have extensive experience of specification writing.

Commencing salaries in each case will be in accordance with qualifications and experience.

Candidates who have previously applied for these posts need not re-apply as their original applications will again be considered.

The Council is unable to provide housing accommodation, but a contribution towards removal expenses will be considered.

The appointments will be subject to the Local Government Superannuation Acts; and to the National Joint Council's Scheme of Conditions of Service.

Application forms are obtainable from me, to whom they should be returned not later than SATURDAY, 3rd SEPTEMBER, 1960.

D. H. PRITCHARD,
Town Clerk.

Town Clerk's Office,
Harrow Weald Lodge,
Harrow,
Middlesex.

BEXLEY
BOROUGH.

ARCHITECTURAL DRAUGHTSMAN.

Applications are invited for this appointment at a salary within Grade A.P.T. I (£610-£765 per annum) plus London Weighting.

Applicants should be good draughtsmen and have a general knowledge of building construction and specification work.

Form of application and conditions of appointment are obtainable from Borough Engineer, West Lodge, Broadway, Bexleyheath, to whom completed applications must be returned by MONDAY, 12th SEPTEMBER, 1960. Canvassing will disqualify.

ARTHUR GOLDFINCH,
Town Clerk.

NOTTINGHAM CITY.

CITY ENGINEER'S DEPARTMENT.
ASSISTANT QUANTITY SURVEYOR, GRADE A.P.T. IV (£1,065-£1,220 p.a.).

Applications are invited for the above position.

Applicants should be Associates of the Royal Institution of Chartered Surveyors or have extensive professional experience.

The person appointed will be required to be responsible for all the quantity surveying work on individual major contracts.

Commencing salary will depend on experience.

Assistance with housing may be given.

Applications are to be made on forms to be obtained from R. M. Finch, Esq., O.B.E., M.I.C.E., City Engineer and Surveyor, Guildhall, Nottingham, to whom they should be returned not later than 31st AUGUST, 1960.

BARNSLEY
COUNTY BOROUGH.

EDUCATION COMMITTEE.
AMENDED ADVERTISEMENT.
ST. HELEN'S SECONDARY MODERN SCHOOL.

The Education Committee invite applications for the appointment of a CLERK OF WORKS for a Secondary Modern School at St. Helen's, Barnsley. Salary will be at the rate of £900 per annum rising by annual increments of £25 (2) to £950 per annum. It is expected that the minimum period of employment will be two and a half years with a possible extension of employment, subject to satisfactory service, to another project.

Candidates should have a thorough knowledge of building construction, materials, installation of mechanical, heating and electrical services for large buildings, and generally have a wide experience of the Building Trade.

Preference will be given to persons who have supervised building contracts for modern school buildings.

Forms of application and conditions of service for the post can be obtained from the undersigned, to whom they should be returned when completed on or before 27th AUGUST, 1960.

H. A. REDBURN,
Director of Education.

Education Department,
Town Hall,
Barnsley.
August, 1960.

CASTLEFORD
BOROUGH.

APPOINTMENTS IN THE BOROUGH ENGINEER'S DEPARTMENT.

Applications are invited for the following appointments:—

SENIOR ASSISTANT ENGINEER. Salary—Special Grade: commencing salary according to qualifications and experience but not less than £905 per annum, rising to £1,070 per annum. Applicants must be Corporate Members of the Institution of Municipal and/or Civil Engineers, and have had experience in a Municipal Engineer's Office.

ASSISTANT ENGINEER. Salary—Grade A.P.T. II (£765-£880). Applicants should have completed a recognised form of training as Municipal Engineers and should preferably have passed the Joint Part I Examination of the Institution of Civil and Municipal Engineers.

SENIOR ASSISTANT ARCHITECT. Salary—Special Grade: commencing salary according to qualifications and experience but not less than £905 per annum, rising to £1,070 per annum. Applicants must be Associate Members of the R.I.B.A. and/or Registered Architects, and have had some years' practical experience.

ARCHITECTURAL ASSISTANT. Salary—Grade A.P.T. II (£765-£880). Applicants should have passed the Intermediate Examination of the R.I.B.A. or its equivalent at one of the recognised Schools of Architecture.

N.J.C. Service conditions; superannuable; terminable by one month's notice on either side. The successful applicants will be required to pass satisfactorily a medical examination.

If required housing accommodation will be provided for successful married applicants.

Applications, on forms obtainable from me, to be returned by the 31st AUGUST, 1960.

Canvassing disqualifies.

ERNEST HUTCHINSON,
Town Clerk.

SURREY
COUNTY COUNCIL.

Applications invited for appointment of BUILDING SURVEYORS in County Architect's Department on Grade A.P.T. III, £880-£1,065 p.a. plus London Weighting.

Preference will be given to candidates who have passed the intermediate examination of the R.I.C.S. Building Section.

Applicants should have a sound knowledge of building construction and be able to prepare plans and specifications, and to supervise alteration works.

Applications, stating age, education and experience, to the County Architect, County Hall, Kingston, as soon as possible.

NORTHAMPTONSHIRE
COUNTY COUNCIL.

COUNTY ARCHITECT'S DEPARTMENT.
HEATING ENGINEERING ASSISTANT.
A.P.T. II (£765-£880 per annum).

Applications are invited from candidates who have had experience in the design of schemes and the preparation of drawings and specifications for heating and hot and cold water supplies in schools and other large buildings. A car travelling allowance will be payable in accordance with the County Council's approved scale.

A weekly sum of 25s. by way of temporary additional salary will be payable, subject to review quarterly, to a married officer unable to find a house locally.

Details, giving age, education, qualifications and experience, with a copy of a recent testimonial, should be sent in an envelope marked "Engineering Assistant," to the County Architect, County Hall, Northampton, by 30th AUGUST, 1960.

J. ALAN TURNER,
Clerk of the County Council.

County Hall,
Northampton.

LANCASHIRE
COUNTY COUNCIL.

COUNTY ARCHITECT'S DEPARTMENT.

Applications are invited for the following appointments on the permanent staff. The Quantity Surveying Branch of the Department undertakes work in all stages, from Cost Planning to Final Accounts, and the programme is both interesting and varied.

(a) SENIOR ASSISTANT QUANTITY SURVEYOR, N.J.C. Grade "B," £1,320-£1,485.

Applicants should be Chartered Quantity Surveyors and capable of taking charge of a small team of Surveyors working on major projects.

(b) SENIOR ASSISTANT QUANTITY SURVEYOR, A.P.T. V, £1,220-£1,375.

Applicants should be Chartered Quantity Surveyors and the person appointed will be a senior member of a team of Surveyors.

(c) QUANTITY SURVEYING ASSISTANT, A.P.T. I, £765-£880.

Applicants should have passed the Intermediate Examination of the R.I.C.S.

(d) QUANTITY SURVEYING ASSISTANT, A.P.T. I, £610-£765.

Applicants should have passed the First Examination of the R.I.C.S.

Forms of applications obtainable from and returnable to the County Architect, P.O. Box 26, County Hall, Preston, by 2nd SEPTEMBER, 1960.

SALOP
COUNTY.

ARCHITECT'S DEPARTMENT.

There is a vacancy on the established staff for a qualified ASSISTANT ARCHITECT. Salary Grade £785-£1,070 p.a.—commencing point depending on ability and experience. N.J.C. Conditions. Five-day week. A disturbance allowance or weekly separation allowance may be paid to a married man taking up this appointment. Conditions of service and application forms obtainable from Ralph Crowe, A.A.Dipl., A.R.I.B.A., A.M.T.P.I., County Architect, Column House, London-road, Shrewsbury. Closing date 3rd SEPTEMBER, 1960.

CORBY
DEVELOPMENT CORPORATION.

ARCHITECTURAL STAFF.

There are vacancies on the staff of the Chief Architect for SENIOR ASSISTANTS and ARCHITECTURAL ASSISTANTS.

For the former appointments the salary will be within A.P.T. Grade V (£1,220-£1,375) and candidates must possess A.R.I.B.A. or an equivalent qualification.

For the latter appointments the salary will be within A.P.T. Grade II (£765-£880) and candidates will be expected to have passed the Intermediate Examination of the R.I.B.A., or an equivalent examination.

For both appointments the commencing salary within the Grade will depend upon qualifications and experience.

The appointments are within the Local Government Superannuation Scheme.

Housing is available and removal expenses will be paid.

Applications stating age, education, training, qualications, experience, appointments held and salaries, together with the names of two referees must reach the undersigned by MONDAY, the 5th SEPTEMBER, 1960.

F. R. BROOKS GRUNDY,
General Manager.
Corby Development Corporation,
Spencer House,
Corby,
Northants.

SOUTHEND-ON-SEA
COUNTY BOROUGH.

BOROUGH ARCHITECT'S DEPARTMENT.
ASSISTANT QUANTITY SURVEYORS.

Applications are invited for ASSISTANT QUANTITY SURVEYORS to be appointed according to experience within grades A.P.T. III to V (£880-£1,375).

A house will be available and removal expenses paid to successful applicants.

Applications, with usual particulars and the names of referees, should be sent to the Borough Architect, 30 Alexander-street, Southend-on-Sea, by MONDAY, 29th AUGUST, 1960.

ARCHIBALD GLEN, Town Clerk.

MANCHESTER.
CITY ARCHITECT'S OFFICE.

Applications invited for appointment on the permanent staff of a DISTRICT BUILDING SURVEYOR. Applicants must be conversant with the Model Building By-laws, have had experience in the supervision of building works and the treatment of dangerous buildings. Should have passed the Building Surveyors Examination of the R.I.B.A., or the Building Inspectors Examination of the Institution of Municipal Engineers, or hold equivalent qualifications. Salary A.P.T. II £765-£880. Housing accommodation for a limited period may be provided. Removal expenses allowed. Five-day week. Forms of application from City Architect, P.O. Box 488, Town Hall, Manchester 2, returnable by 31st AUGUST, 1960.

CARLISLE CITY.

Applications are invited from suitably qualified and experienced SURVEYORS for the following appointments in the City Engineer and Surveyor's Office :—

(a) CHIEF ASSISTANT QUANTITY SURVEYOR. Grade A.P.T. V, £1,220 to £1,375 p.a.

(b) ASSISTANT QUANTITY SURVEYORS. Special Grade, £785 to £1,070 p.a.

Housing accommodation will be available for rent to successful applicants in approved circumstances.

Forms of application, returnable not later than 9th SEPTEMBER, 1960, may be obtained from the City Surveyor, 18 Fisher-street, Carlisle.

H. D. A. ROBERTSON,
Town Clerk.

BLACKBURN
COUNTY BOROUGH.

APPOINTMENT OF QUANTITY SURVEYING ASSISTANT.
Grade A.P.T. IV (£1,065-£1,220).

Applications for this position are invited from qualified QUANTITY SURVEYORS (R.I.C.S.—quantities section or equivalent) having suitable experience.

Housing accommodation will be available if required.

Applications, stating age, qualifications and experience, with names of two referees, to be sent to Borough Engineer, Town Hall, Blackburn, by 31st AUGUST, 1960.

FRANK SQUIRES,
Town Clerk.

MANCHESTER.
CITY ARCHITECT'S OFFICE.

Applications are invited for the following appointments on the Permanent Staff.

(i) SENIOR ASSISTANT ARCHITECT. Salary A.P.T. V, £1,220 to £1,375 per annum. Must be A.R.I.B.A. with considerable office experience.

(ii) ASSISTANT ARCHITECT. Salary A.P.T. IV, £1,065 to £1,220 per annum. Must be A.R.I.B.A.

(iii) ASSISTANT ARCHITECT/ARCHITECTURAL ASSISTANT. Salary Special Grade, £785 to £1,070 per annum. Must have passed parts 1 and 2 of the R.I.B.A. final examination or equivalent and have had five years' experience including the period spent in theoretical training.

(iv) ARCHITECTURAL ASSISTANT. Salary A.P.T. III £610-£880 per annum. Must have passed the intermediate examination of the R.I.B.A. or hold equivalent qualifications.

Five-day week. Housing accommodation may be provided for a limited period for successful candidates for appointments (i) to (iii). Removal expenses allowed.

Forms of application from the City Architect, Town Hall.

Returnable by 31st AUGUST, 1960.

GRIMSBY
COUNTY BOROUGH.

CONSTRUCTION OF INDOOR SWIMMING POOL.
APPOINTMENT OF CLERK OF WORKS.

The Corporation invites applications from experienced persons for the appointment of a TEMPORARY CLERK OF WORKS required in connection with the construction of a new Indoor Swimming Pool and other appurtenant works. The Consulting Engineers are Messrs. Oscar Faber and Partners, London.

The duration of the work will be approximately eighteen months, and the applicants must be experienced in carrying out works of an important nature comprising reinforced concrete, structural steelwork and general building work of this type, together with the installation of mechanical and other services.

The salary to be paid is £1,200 per annum.

Applications, together with the names and addresses of two referees, to be forwarded to the undersigned not later than MONDAY, the 5th SEPTEMBER, 1960.

J. V. OLDFIELD, M.Inst.C.E.,
Borough Engineer and Surveyor.
Municipal Offices.
Town Hall-square,
Grimsby.
August, 1960.

ADMIRALTY

TEMPORARY ASSISTANT ARCHITECTS (BASIC GRADE).

ASSISTANT ARCHITECTS required in newly formed Architect's Branch of Navy Works Department of Admiralty at Headquarters (Pinner, Middlesex). Duties embrace design of sleeping, messing and recreation buildings for single officers and men, houses, flats and housing estates, instructional buildings, office blocks, hospitals and industrial buildings. Assistant Architects at Headquarters work under control of main grade and/or Senior Architects and expected to lead group of Architectural Assistants. Qualifications: A.R.I.B.A. Must be British subjects with first-class design ability and sound working knowledge of up-to-date forms of construction, materials and costs. Scope for development and application of new ideas in design of Naval buildings. Posts in basic grade with salaries starting from £830 per annum (London Rate) at age 25 to £1,125 per annum (London Rate) at age 34 or over. Maximum of London Scale is £1,300 p.a. Posts offered are non-pensionable with opportunities for establishment promotion to main grade (salary maximum £1,730 National Rate) and higher posts. Five-day week. Annual Leave allowance 22 days, rising to 25 days after 10 years' and 30 days after 20 years' service. Forms quoting reference J.275/OA from Ministry of Labour, Technical and Scientific Register (K), Almack House, 26 King-street, London, S.W.1.

LANCASHIRE
COUNTY COUNCIL.

COUNTY ARCHITECT'S DEPARTMENT.
SENIOR ASSISTANT ARCHITECTS.

£1,320 to £1,485 according to experience, and covered by Lancashire County Council Superannuation Scheme.

The Governors of Salford College of Advanced Technology are proceeding with a major expansion of the College. This project is to be of advanced design, offering opportunity for experience in the design of buildings to meet the needs of pioneer scientific processes, which are estimated to cost £3m.

The team for this scheme will work with Messrs. Ove Arup & Partners, Structural Consultants, and will include Quantity Surveyors and Mechanical Engineers. The team will work in the County Architect's Office at Preston.

On completion of the project, Architects will be engaged on a wide variety of new buildings for the Lancashire County Council.

Application Forms and details of appointment from:

The County Architect,
P.O. Box 26,
County Hall,
Preston,

returnable by 2nd SEPTEMBER, 1960, quoting reference A/B.

BRACKNELL DEVELOPMENT CORPORATION

Applications are invited for the following appointments :—

(a) SENIOR ARCHITECT

Grade VIII (£1392 x £57(4)—£1620)

The development of the New Town of Bracknell, begun in 1950, is now in a very interesting stage, and a Senior Architect is required to take charge of planning aspects, under the Chief Architect, and to work out in detail important central areas of the present Master Plan and probably to plan the extension of the Designated Area from 1,850 to 3,050 acres and the population from 25,000 to 40,000, regarding which the Minister is in statutory consultation with the County and Local Authorities.

Applicants should be Corporate Members of the R.I.B.A. and the T.P.I. with a high degree of skill in the following duties :—

(a) the preparation of Central Area and Neighbourhood plans.

(b) the examination of planning applications, in conjunction with County and Local Authorities, and giving evidence at Inquiries.

(c) the preparation of preliminary housing layouts and basic house design.

The post offers considerable scope in a variety of interesting work.

(b) ASSISTANT ARCHITECTS

(2)—Grade IV (£1065 x £55 x £50(2)—£1220)

Applicants should be Corporate Members of the R.I.B.A. and will be required to assist with the above planning and in the general work of the Department.

Superannuation schemes, medical examination. Good housing accommodation available for each post.

Applications, stating the post applied for and giving age, education, qualifications, experience and appointments held (with dates and salaries) should be addressed to the

General Manager (A),
Bracknell Development Corporation,
Farley Hall, Bracknell, Berks,

to be received not later than the 31st August 1960.

NORTHERN IRELAND
GOVERNMENT.

ASSISTANT ARCHITECT CLASS II.

Applications invited from Registered Architects by examination with at least two years' experience in an Architect's office in preparing working drawings for pensionable post in Chief Architect's Branch, Ministry of Finance. Salary scale: £805 (at age 25) to £1,095 (age 34 and over) to £1,260. Existing pension rights may, in certain circumstances, be transferred. Preference for ex-Servicemen. Application forms, obtainable from Secretary, Civil Service Commission, Stormont, Belfast, 4, must be returned by 31st AUGUST, 1960.

MINISTRY OF EDUCATION

Requires ARCHITECTS AND ASSISTANT ARCHITECTS in the Development Group of its Architects and Building Branch in London. Work consists of study in principle and detail of design and construction of educational buildings and of their services, fittings and furniture; and the application of results to school projects. Post unestablished at first, but possibilities of permanency later. Appointment of (A) Architect at minimum of London salary scale, £1,325-£1780, or (B) Assistant Architects starting salary according to age on scale £830-£1,300. Conditioned hours 42 in a five-day week. Annual leave varies according to grade and length of civil service from 22 days to 30 days. Forms from Ministry of Labour, Technical and Scientific Register (K), 26 King-street, London, S.W.1. Quoting J.10/OA and (A) or (B) as appropriate. Closing date 9th SEPTEMBER, 1960.

CHESHUNT
URBAN DISTRICT COUNCIL.

APPOINTMENT OF BUILDING INSPECTOR (A.P.T. I).

Applications are invited for the above appointment (A.P.T. I). Appropriate London weighting and essential user car allowance will be paid. HOUSING ACCOMMODATION IF REQUIRED. Alternate Saturday mornings worked.

Preference will be given to holders of the Building Inspectors Certificate of the Institution of Municipal Engineers or equivalent qualification.

Applications must reach me not later than 31st AUGUST, 1960.

G. S. NEWNHAM,
Clerk of the Council.
Manor House,
Turners Hill,
Cheshunt.

SALE
BOROUGH.

APPOINTMENT OF ARCHITECTURAL ASSISTANT (A.P.T. III).

Applications are invited from suitably qualified persons for the above appointment. Commencing salary £880 p.a., rising to £1,065 p.a.

Medical examination; one month's notice on either side; Superannuation Scheme. National Conditions of Service.

Applications, stating age, qualifications, experience and present salary, together with the names and addresses (only) of two referees, should be forwarded to the Town Clerk, Town Hall, Sale, not later than WEDNESDAY, 31st AUGUST, 1960.

Canvassing will disqualify.

BERTRAM FINCH,
Town Clerk.
Town Hall,
Sale.
12th August, 1960.

BRENTFORD & CHISWICK
BOROUGH.

Applications are invited for the appointment of MEASURING SURVEYOR in the Borough Engineer and Surveyor's Department at a salary in accordance with Grade A.P.T. II (£805-£920 p.a. including London Weighting allowance). Commencing salary according to qualifications and experience.

Applicants must be experienced in measurement of building work and the settlement of Interim and Final Accounts.

Provision of housing accommodation will be considered.

Applications should be made to the Borough Engineer and Surveyor, by 29th AUGUST, 1960.

W. F. J. CHURCH,
Town Clerk.
Town Hall,
Chiswick, W.4.
11th August, 1960.

CARLISLE CITY.

Applications are invited from Qualified ARCHITECTS to work on an interesting building programme. There are three posts which offer scope for initiative and imagination and an opportunity to carry a project through from sketch design to completion. Salary range A.P.T. IV, £1,065-£1,220 per annum. Housing accommodation considered. Application forms, together with further particulars, can be obtained from the City Engineer, 18 Fisher-street, Carlisle, to whom applications should be sent by 5th SEPTEMBER, 1960.

H. D. A. ROBERTSON,
Town Clerk.

CUMBERNAULD NEW TOWN

The population target of the new town has been increased to 70,000 and the building programme is to be expanded. The following staff are required urgently in the department of the Chief Architect and Planning Officer (L. Hugh Wilson) for work on a variety of interesting projects including industrial buildings and housing of all types:

(a) **2 Assistant Architects,** Grade B, APT. V/VI (£1,220–£1,390). A.R.I.B.A. required.
(b) **2 Assistant Architects,** Grade C, APT. III (£880–£1,065). A.R.I.B.A. required.
(c) **4 Architectural Assistants,** Grade D, APT. I/II (£610–£880). Inter. R.I.B.A. required.
(d) **3 Assistant Planning Officers,** Grade C, APT. III (£880–£1,065). A.R.I.B.A. and A.M.T.P.I. required.
(e) **1 Assistant Landscape Architect,** APT. II (£765–£880). Inter. I.L.A. required.

Commencing salary within the above grades will be fixed according to qualifications and experience.
Assistance with housing in appropriate cases.
5-day week.
Local Government Superannuation subject to medical examination.
Application forms, which may be obtained from the General Manager, **Cumbernauld Development Corporation,** Cumbernauld House, Cumbernauld, Glasgow, should be returned completed not later than Monday, 5th September, 1960.

LONDON
COUNTY COUNCIL.

STRUCTURAL ENGINEERS.

Required in Architect's Department, L.C.C., salary up to £1,250, in:—

(a) STRUCTURAL ENGINEERING DIVISION. Extensive programme includes multi-storey flats, schools, offices, warehouses and other buildings.

(b) STRUCTURAL ENGINEERING DIVISION. To deal with applications in respect of special structures under Part IV of the London Building Act (A) Act, 1939, and the constructional By-laws. Interesting work involving consideration of unconventional forms of construction.

(c) DISTRICT SURVEYORS' SERVICE. Work mainly outside involving negotiations with architects, engineers and surveyors and supervision of works in progress.

Good prospects in all these aspects of the Council's work.

Form and particulars from Hubert Bennett, F.R.I.B.A., Architect to Council (EK/B/1638/8B), County Hall, S.E.1.

ROCHESTER CITY

ARCHITECTURAL ASSISTANT, GRADE A.P.T. I.

Applications are invited for the above appointment in the City Surveyor's Department.

Minimum qualification—Intermediate R.I.B.A. or equivalent standard. Commencing salary according to qualifications and experience.

Housing accommodation available if required.

Approved removal expenses paid after one year in appointment.

Applications, stating age, training, qualifications, present and previous appointments and experience, together with the names and addresses of two persons to whom reference may be made, should be delivered to J. A. Peel, A.M.I.C.E., M.I.Mun.E., City Surveyor, 66 Maidstone-road, Rochester, not later than TUESDAY, 30th AUGUST, 1960.

PHILIP H. BARTLETT,
Town Clerk.

Guildhall,
Rochester.
27th July, 1960.

WARWICK.
BOROUGH

APPOINTMENT OF CHIEF ASSISTANT ARCHITECT.

Applications are invited from QUALIFIED ARCHITECTS for the above appointment within the special grade, £785-£1,070.

Applications together with names and addresses of two persons to whom reference may be made must be delivered to my office not later than the 29th of AUGUST, 1960.

Housing accommodation will be provided if necessary and removal expenses paid.

C. E. BROWN, A.M.I.Mun.E.,
Borough Engineer and Surveyor
23 Jury-street,
Warwick.

LONDON
COUNTY COUNCIL.

BUILDING SURVEYORS.

Architect's Department, L.C.C., has vacancies in Building Regulation Division and District Surveyors' Service for work in connection with applications under the London Building Acts and Byelaws. District Surveyors' offices are located in Metropolitan Boroughs and work involves negotiations with developers and supervision of works in progress.

Up to £1,250, commencing according to qualifications and experience. Form and particulars from Hubert Bennett, F.R.I.B.A., Architect to Council (EK/B/1637/8B), County Hall, S.E.1.

CHATHAM
BOROUGH.

Applications are invited for:

(a) JUNIOR ENGINEERING ASSISTANT (within A.P.T. II, £765-£880).

(b) ARCHITECTURAL DRAUGHTSMAN (within General Division, £210-£595, or Grade A.P.T. I, £610-£765), according to age and experience.

Applicants for (a) should have been trained in a Municipal Engineer's office, and housing accommodation will be made available in an appropriate case.

Applications with copies of two testimonials, or the names and addresses of two referees, should be delivered to the Borough Engineer and Surveyor, Town Hall, Chatham, not later than SATURDAY, 27th AUGUST, 1960.

The appointment will be:

(a) in accordance with the National Scheme of Conditions of Service;

(b) terminable by one month's notice on either side;

(c) superannuable, subject to satisfactory medical report.

In accordance with their usual practice the Council will require the successful candidate to give an undertaking to remain in the Council's service for two years.

ROWLAND NEWNES,
Town Clerk.

Town Hall,
Chatham.
11th August, 1960.

DEWSBURY
COUNTY BOROUGH.

BOROUGH ARCHITECT AND BUILDINGS SURVEYOR'S DEPARTMENT.

Applications are invited for the appointment of CLERK OF WORKS (HOUSING) at a salary in accordance with A.P.T. Grade I (£610-£765 p.a.), the commencing salary to be fixed within the scope of this grade according to qualifications and experience. Housing accommodation may be made available if required.

The appointment will be subject to one month's notice on either side and to the provisions of the Local Government Superannuation Acts.

Applications, stating age, education, qualifications, full particulars of training and experience, together with copies of two recent testimonials, should be sent to the undersigned not later than MONDAY, 5th SEPTEMBER, 1960, in envelopes endorsed "Appointment of Clerk of Works (Housing)."

A. NORMAN JAMES,
Town Clerk.

Town Hall,
Dewsbury.
12th August, 1960.

WORCESTER CITY.

APPOINTMENT OF TEMPORARY CLERK OF WORKS—HOUSING.

Applications are invited from men with considerable experience in the building trade for this temporary appointment within A.P.T. Grade II (Salary £765-£880).

The successful candidate will be required to assist in the supervision of house-building contracts in various parts of the City.

The appointment, which is superannuable, is expected to last at least 3 years and is subject to a medical examination.

Applications, stating age, qualifications and experience, and giving the names of two referees, are to be sent to the City Engineer and Surveyor, 22 Bridge-street, Worcester, not later than the 24th AUGUST, 1960.

BERTRAM WEBSTER,
Town Clerk.

Guildhall,
Worcester.

ENFIELD
BOROUGH.

BOROUGH ENGINEER AND SURVEYOR'S DEPARTMENT.
APPOINTMENT OF CLERK OF WORKS.

Applications are invited for the above temporary appointment at a salary in accordance with Grade A.P.T. I of the National Scheme of Conditions of Service, i.e. £610-£765 per annum with the addition of "London Weighting" as follows: Age 16-20 years, £15; 21-25 years, £25; 26 years and over, £40.

Commencing salary will be fixed at a point within the Scale commensurate with ability and experience.

Candidates must have a sound practical knowledge of all branches of the building trade and be experienced in the supervision and erection of buildings, capable of setting out, taking levels, measuring Contractors' works and keeping records and making reports.

The person appointed will be required to carry out his duties during those hours when building work is in progress on the various contracts with which he is concerned.

Application forms, obtainable from Mr. H. D. Peake, M.Sc.(Eng.), M.I.C.E., Borough Engineer and Surveyor, "Percy House," 7 Little Park Gardens, Enfield, Middlesex, must be returned to the undersigned not later than MONDAY, 5th SEPTEMBER, 1960.

CYRIL E. C. R. PLATTEN,
Town Clerk.

Public Offices,
Enfield,
Middlesex.

LEEDS CITY.

CITY ARCHITECT'S DEPARTMENT.
QUANTITY SURVEYING STAFF.

A number of vacancies occur in the Quantity Surveying Section which deals with the preparation of bills of quantities and other work in connection with the large building programmes of the department. These programmes include schools, housing with multi-storey flats, hostels and other interesting projects and the posts offer opportunities to work as part of a team in a progressive office.

Post No. 1: SENIOR ASSISTANT QUANTITY SURVEYOR, Grade B, Salary Scale £1,320-£1,485.

Applicants should have wide experience in the preparation of bills of quantities for major works including schools.

Post No. 2: SENIOR ASSISTANT QUANTITY SURVEYOR, Grade A, Salary Scale £1,310-£1,420.

Applicants should have considerable experience in Taking Off and preference will be given to those with experience in cost analysis and cost planning.

Post No. 3: SENIOR ASSISTANT QUANTITY SURVEYORS, Grade A.P.T. V, Salary Scale £1,220-£1,375.

Applicants should have considerable experience in Taking Off, in the measurement of work in progress and the settlement of final accounts for major schemes.

Post No. 4: SENIOR ASSISTANT QUANTITY SURVEYORS, Grade A.P.T. IV, Salary Scale £1,065-£1,220.

Post No. 5: SENIOR ASSISTANT QUANTITY SURVEYORS, Grade A.P.T. III, Salary Scale £880-£1,065.

Applicants for posts Nos. 4 and 5 should be experienced in the measurement of variations and the settlement of final accounts for large schemes and should have some experience of Taking Off.

Post No. 6: SENIOR WORKER-UP, Grade A.P.T. III, Salary Scale £880-£1,065.

It is essential that applicants for this post should have the ability to write a good bill for major schemes and should have wide experience of this type of work in a professional office.

Applicants for posts Nos. 1, 2 and 3 should hold appropriate professional qualifications and applicants for posts Nos. 4 and 5 should have reached the appropriate standards of qualification and preference will be given to those qualifying for the Quantities sub-division of the R.I.C.S.

The appointments are superannuable—medical examination.

Further details and application forms may be obtained from the undersigned and applications are to be returned by 12 NOON on MONDAY, 5th SEPTEMBER, 1960.

Canvassing disqualifies.

J. R. SHERIDAN-SHEDDEN,
City Architect.

Priestley House,
Quarry-hill,
Leeds, 9.

ETON
RURAL DISTRICT COUNCIL.

APPOINTMENT OF ASSISTANT BUILDING INSPECTOR.

Applications are invited for the appointment of ASSISTANT BUILDING INSPECTOR at a salary within Grade A.P.T. I (£610-£765). Candidates should have had experience in a similar capacity, and preference will be given to those who have a good knowledge of building byelaw and planning procedure, whilst practical experience as a craftsman in the building industry in a supervisory capacity will also be an advantage.

The person appointed will be required to pass a medical examination, and the appointment will be subject to Local Government Superannuation Acts and the Council's Conditions of Service. It will be terminable by one month's notice on either side.

Applications, stating age, marital status, education, qualifications, experience, past and present appointments and giving the names and addresses of two referees, should be sent to the undersigned, to arrive by FIRST POST on SATURDAY, 27th AUGUST, 1960.

Canvassing will disqualify.

G. L. BRIDGER,
Clerk to the Council.

Council Offices,
Windsor-road,
Slough,
Bucks.
9th August, 1960.

LIVERPOOL CITY

CITY BUILDING SURVEYOR'S DEPARTMENT.

Applications are invited for appointments of JUNIOR ASSISTANTS (SURVEYING). Salary £610-£765 (A.P.T. I), according to experience.

Applicants must possess the Intermediate Certificate of the Royal Institution of Chartered Surveyors (Sub-Division III—Building) or equivalent qualification or the Higher National Certificate in Building. The duties are the examination of (a) building work to ensure compliance with building legislation and the securing of dangerous structures; (b) building plans to ensure compliance with building legislation, or (c) factories and other buildings with respect to the provision of means of escape in case of fire.

Application forms obtainable from the City Building Surveyor, Municipal Buildings, Dale-street, Liverpool, 2.

The appointments are superannuable and subject to the Standing Orders of the City Council. Canvassing disqualifies.

THOMAS ALKER,
Town Clerk (J.6342).

STIRLING
COUNTY COUNCIL

COUNTY ARCHITECT'S DEPARTMENT.

Applications are invited to fill a number of vacancies in the School and Housing Sections. The vacancies provide excellent opportunities for Assistants with good experience in contemporary design and construction.

(A) SENIOR ASSISTANT ARCHITECT. Salary: £1,260 to £1,512.

Applicants must hold A.R.I.B.A. and have had wide experience in preparation of working drawings, taking complete responsibility and handling building contracts.

(B) ASSISTANT ARCHITECTS. Salary: £1,150 to £1,320.

Applicants must hold A.R.I.B.A., and have good general experience.

(C) PROFESSIONAL ASSISTANTS' GRADE. Salary: £795 to £1,075.

Applicants must hold A.R.I.B.A., and placing will be in accordance with experience.

(D) ASSISTANT QUANTITY SURVEYOR. Salary: £1,150 to £1,320.

Applicants must hold A.R.I.C.S., and have wide scheduling experience.

The Appointments will be subject to the provisions of the Local Government Superannuation Act, and the successful candidates will require to pass a medical examination.

Applications, stating age, qualifications and experience, together with names of two referees, should be lodged with A. J. Smith, A.R.I.B.A., F.R.I.A.S., County Architect, Spittal-street, Stirling, not later than 5th SEPTEMBER, 1960.

JAMES D. KENNEDY,
County Clerk.

Viewforth,
Stirling.

WEST HAM
COUNTY BOROUGH.

BOROUGH ARCHITECT AND PLANNING OFFICER'S DEPARTMENT.

Applications invited for established posts as follows:—

GROUP ARCHITECT, £1,065-£1,220 p.a.;

DEPUTY GROUP ARCHITECT, £785-£1,070 p.a.;

ARCHITECTURAL ASSISTANT, £610-£765 p.a.

(London Allowance in addition.)

Commencing salary according to qualifications and experience.

Applications to: Borough Architect and Planning Officer, 70 West Ham-lane, Stratford, E.15.

CRAWLEY
DEVELOPMENT CORPORATION.

CRAWLEY DEVELOPMENT CORPORATION have the following vacancies in the Estates Department (Maintenance Section):—

1. ASSISTANT BUILDING SURVEYOR, A.P.T. III/IV, £880-£1,200. Sound experience in estimating for and carrying through large scale repairs and alterations essential. Must be capable of working on own initiative. Must have passed final examination of R.I.C.S. (Building Sub-Division) or other approved professional institution.

2. ASSISTANT IN MAINTENANCE SECTION, A.P.T. I/II, £610-£880. Similar requirements to the last appointment but Intermediate Examination of R.I.C.S. (Building Sub-Division) or other approved professional institution acceptable.

3. ASSISTANT IN MAINTENANCE SECTION, General Division, A.P.T. I, £465-£765. Experience required in ordering, pricing and supervision of repairs and general maintenance works carried out by Contractors. Preference given to candidates studying for Examination of R.I.C.S. (Building Sub-Division) or other approved institution.

Commencing salary in each case according to age and experience. Housing may be provided. Contributory Superannuation Scheme.

Apply on forms from Chief Estates Officer (Vacancy), Broadfield, Crawley, Sussex, by 26th AUGUST, 1960.

HUYTON-WITH-ROBY
URBAN DISTRICT COUNCIL.

ARCHITECTURAL AND HOUSING DEPARTMENT.

Applications are invited for posts in the above Department as follows:—

(a) SENIOR ASSISTANT ARCHITECT, Grade A.P.T. IV (£1,065-£1,220).

(b) ARCHITECTURAL ASSISTANT, Grade A.P.T. II (£765-£880).

Candidates for post (a) should be associate members of the R.I.B.A., and candidates for post (b) should have passed the Intermediate Examination of the R.I.B.A.

The work of the Department consists of a large Housing and Capital Works programme.

The appointments will be subject to the Local Government Superannuation Acts and the National Conditions of Service, and will be terminable by one calendar month's notice in writing on either side.

Applications, stating age, qualifications and experience, together with the names of two persons to whom reference can be made, should reach R. T. Chappelle, A.R.I.B.A., Architect and Housing Director, Archway-road, Huyton, not later than 22nd AUGUST, 1960.

Canvassing disqualifies.

D. WILLGOOSE,
Clerk of the Council.

Council Offices,
Derby-road,
Huyton.

KING'S LYNN
BOROUGH.

APPOINTMENT OF ASSISTANT QUANTITY SURVEYOR.

Applications are invited for the above appointment. Salary within Grades A.P.T. II-III (£765-£1,065). Housing accommodation provided. Removal expenses paid.

Further particulars may be obtained from G. Holmes, A.R.I.B.A., Housing Architect, Clifton House, Queen-street, King's Lynn.

Closing date, 30th AUGUST, 1960.

E. W. GOCHER,
Town Clerk.

Town Hall,
King's Lynn,
Norfolk.

CUMBERLAND
COUNTY COUNCIL.

COUNTY ARCHITECT'S DEPARTMENT.

Applications are invited for the appointment of ASSISTANT COUNTY ARCHITECT (DESIGN) at a salary within J.N.C. Scale A (£1,260 x £50(2) x £30-£1,390). Essential User Grade C travelling allowance. Housing accommodation is available.

Applicants must be A.R.I.B.A.—this is an excellent opportunity for a young Architect with a flair for design.

Further details and application forms, to be returned not later than MONDAY, 22nd AUGUST, 1960, may be obtained from the Acting County Architect, 15 Portland Square, Carlisle. The successful applicant will be required to take up his duties as soon as possible.

G. N. C. SWIFT,
Clerk of the County Council.

LEEDS CITY.

CITY ARCHITECT'S DEPARTMENT.

Applications are invited from persons holding appropriate professional qualifications for the following permanent posts:—

(a) ASSISTANT CITY ARCHITECT (HOUSING):

(b) ASSISTANT CITY ARCHITECT (EDUCATION AND GENERAL).

Salary scale £1,790-£2,085 per annum. Grade "F."

The Assistant City Architect (Housing) will be responsible under my control for large house building programmes and should have had a wide experience of all forms of housing layout, comprehensive developments and multi-storey flats.

The Assistant City Architect (Education and General) will be responsible under my control for major educational building projects and large public buildings, e.g., multi-storey college, municipal office block, abattoir, swimming baths, etc.

Both posts carry great responsibilities and offer worthwhile opportunities to those who are keenly interested in design and the planning and organisation of extensive municipal building schemes.

Further details and application forms may be obtained from the undersigned.

Applications are also invited for the following permanent posts in (a) Housing and (b) Education and General sections of the department.

Post No. 1: PRINCIPAL ARCHITECTS. Grade C, Salary Scale £1,385-£1,620.

Post No. 2: ASSISTANT PRINCIPAL ARCHITECTS. Grade B, Salary Scale £1,320-£1,485.

Post No. 3: SENIOR ASSISTANT ARCHITECTS. Grade A.P.T. V, Salary Scale £1,220-£1,375.

Post No. 4: SENIOR ASSISTANT ARCHITECTS. Grade A.P.T. IV, Salary Scale £1,065-£1,220.

Post No. 5: ASSISTANT ARCHITECTS. Grade A.P.T. III, Salary Scale £880-£1,065.

Post No. 6: ARCHITECTURAL ASSISTANTS. Grade A.P.T. II, Salary Scale £765-£880.

Applicants for the senior posts must hold appropriate professional qualifications and should have had a wide experience in either housing, education or other types of large public building work and will be required to design and work on these projects to completion. Applicants will be considered on their capability for design, experience, contemporary outlook and suitability.

The appointments are superannuable—medical examination.

Application forms, obtainable from the undersigned, are to be returned by 12 NOON on MONDAY, 5th SEPTEMBER, 1960.

Canvassing disqualifies.

J. R. SHERIDAN-SHEDDEN,
City Architect.

Priestley House,
Leeds, 9.

LONDON
CORPORATION.

Applications are invited for temporary appointments in the City Engineer's Department:—

ASSISTANT SITE ARCHITECT, £1,325 per annum;

ASSISTANT ARCHITECT, £1,120 per annum;

in connection with the construction under contract of a large municipal building; for the duration of the works estimated at 2½ years.

Candidates should be Corporate Members of the R.I.B.A. and have had good general experience in preparation of working detail and site supervision.

Applications, stating age, appointments held and experience, together with names of two referees, to The City Engineer, Guildhall, London, E.C.2, by 29th AUGUST, 1960.

SOUTH SHIELDS
COUNTY BOROUGH.

PRINCIPAL ASSISTANT QUANTITY SURVEYOR

Applications are invited for the above appointment in the Borough Engineer's Department. Applicants must be suitably qualified and the salary paid will be in accordance with Grade A.P.T. V (£1,220-£1,375).

Housing accommodation will be made available to successful applicant if necessary and he will be required to pass a medical examination for Superanuation purposes.

Application forms are obtainable from the Borough Engineer, Town Hall, South Shields, and should be returned to him not later than 10 a.m., MONDAY, 19th SEPTEMBER, 1960.

R. S. YOUNG,
Town Clerk.

SOUTHAMPTON
COUNTY BOROUGH.

Applications are invited for the following appointments:

(a) SENIOR ASSISTANT ARCHITECT, Grade A.P.T. V (£1,220-£1,375), for duties in connection with an extensive and varied programme of housing development including multi-storey flats. Applicants must hold the qualification A.R.I.B.A. with wide experience in the design and administration of major building works.

(b) ASSISTANT ARCHITECT, Grade A.P.T. III-IV (£880-£1,220), for duties in connection with housing estate development. Applicants must have passed Parts I and II of the R.I.B.A. final examination. Commencing salary according to experience and qualifications.

The appointments are subject to N.J.C. conditions of service.

Housing accommodation available in approved cases and approved removal expenses reimbursable up to a maximum of £50.

Apply on application forms obtainable from the Borough Engineer and Surveyor, Civic Centre, Southampton, returnable by MONDAY, 29th AUGUST, 1960.

CENTRAL ELECTRICITY GENERATING BOARD.

QUANTITY SURVEYOR'S ASSISTANT

required in the Transmission Construction Branch of the Transmission Department. The appointment will ultimately be to the Board's office at Guildford but initially, the successful applicant will be required to work at Headquarters, London, S.E.1. It is anticipated that this will be until late 1960 or early 1961.

Candidates must have previous experience in a Quantity Surveyor's or Contractor's office and should preferably be Students or Probationers of the Royal Institution of Chartered Surveyors.

Duties will be to assist in the working-up of bills of quantities and the preparation of accounts for building and civil engineering work in connection with the establishment of high voltage substations.

Salary within the range £780-£880 p.a. plus London Allowance of 5 per cent while applicable.

Applications stating age, qualifications, experience, present position and salary, to the Personnel Officer, 24-30 Holborn, London, E.C.1, by 30th AUGUST. Envelopes should be marked "Confidential Ref. BUI/296."

NEWCASTLE UPON TYNE
CITY AND COUNTY.

CITY ARCHITECT'S DEPARTMENT.

Consequent upon revisions to the Establishment of his Department, the City Architect is now able to offer vacancies in the various Architectural Sections of the Department and will be pleased to hear from Architects who are keen to take part in an exciting and extensive programme of high quality architectural work.

SENIOR ASSISTANT ARCHITECTS (General, New Town Hall, Education, Housing and Re-Housing Sections), A.P.T. V, £1,220-£1,375 per annum.

SENIOR ASSISTANT ARCHITECTS (General, New Town Hall and Housing Sections), A.P.T. IV, £1,065-£1,220 per annum.

SENIOR ASSISTANT ARCHITECTS (Housing and Re-Housing Sections), A.P.T. III, £880-£1,065 per annum.

ASSISTANT ARCHITECT (Re-Housing Section), A.P.T. II, £765-£880 per annum.

ARCHITECTURAL ASSISTANTS (Education and Re-Housing Sections), A.P.T. I, £610-£765 per annum.

Work has now commenced on the superstructure of the New Town Hall and there are interesting schemes in preparation for Colleges of Further Education, Multi-Storey Flats and other building works of a major nature. There is, too, the prospect of stimulating work in the near future on redevelopment of the City Centre.

Further details of the above posts and Forms of Application may be obtained from George Kenyon, A.R.I.B.A., A.M.T.P.I., City Architect, 18 Clothmarket, Newcastle upon Tyne, 1. Applicants must state the Section of the Department and the post and grade applied for when requesting particulars.

Closing date for completed applications: SATURDAY, 10th SEPTEMBER, 1960.

JOHN ATKINSON,
Town Clerk.

Town Hall,
Newcastle upon Tyne, 1.
10th August, 1960.

COUNTY BOROUGH OF SOUTHEND-ON-SEA
BOROUGH ARCHITECT'S DEPARTMENT

ASSISTANT ARCHITECTS

A house will be available and removal expenses paid to **Assistant Architects** with initiative and enthusiasm to be appointed according to experience within grades A.P.T. III to V (£880—£1,375).

Applications with usual particulars and the names of referees, should be sent to the Borough Architect, 30, Alexandra Street, Southend-on-Sea, by Monday, 29th August, 1960.

ARCHIBALD GLEN, TOWN CLERK.

WARRINGTON
COUNTY BOROUGH

BOROUGH ENGINEER AND SURVEYOR'S DEPARTMENT.

Applications are invited for the undermentioned permanent appointments:—

(1) ENGINEERING ASSISTANT, within Special Scale (£785 rising to £1,070 per annum).

(2) ENGINEERING ASISTANT, within Grade I (£610 rising to £765 per annum).

(3) PRINCIPAL ARCHITECTURAL ASSISTANT, within Grade IV (£1,065 rising to £1,220 per annum).

(4) ARCHITECTURAL ASSISTANT, within Special Scale (£785 rising to £1,070 per annum).

(5) ARCHITECTURAL ASSISTANT, within Grade II (£765 rising to £880 per annum).

(6) ARCHITECTURAL ASSISTANT, within Grade I (£610 rising to £765 per annum).

Candidates for Appointment (1) must be Associate Members of the Institution of Civil Engineers and/or the Institution of Municipal Engineers, for Appointments (3) and (4) Associates of the Royal Institute of British Architects, and for Appointment (5) have passed the Intermediate Examination.

Housing accommodation will be made available, if required, in respect of Appointments (1), (3) and (4).

The appointments, which are terminable by one month's notice on either side, are subject to the conditions of service of the National Joint Council for Local Authorities Administrative, Professional, Technical and Clerical Services and the provisions of the Local Government Officers' Superannuation Act, 1937, the successful candidates (if new entrants to the Council's service) being required to pass a medical examination.

The canvassing of members of the Council, either directly or indirectly, will be a disqualification, and applicants must state whether to their knowledge they are related to any member of the Council, or any co-opted member of a Committee, or any officer of the Council. Failure to do so will disqualify or may lead to dismissal without notice.

No printed form of application is being used. Applications, stating age, details of training and experience, qualifications, present and previous appointments (in chronological order), together with copies of three recent testimonials, or the names of three referees, should be forwarded to the undersigned so as to be received not later than 12 o'clock NOON on SATURDAY, the 3rd day of SEPTEMBER, 1960.

J. Y. HUGHES, M.I.C.E.,
Borough Engineer and Surveyor.

Town Hall,
Warrington.
11th August, 1960.

GLOUCESTER
COUNTY BOROUGH.

CITY ARCHITECT'S DEPARTMENT.

Applications are invited for the following appointments:—

(a) ASSISTANT ARCHITECTS, A.P.T. Grades IV, £1,065-£1,220 (Senior), and Grade III, £880-£1,065; Parts I and II, R.I.B.A., Final and appropriate experience.

(b) ARCHITECTURAL ASSISTANTS within the Grades A.P.T. I, £610-£765 and A.P.T. II, £765-£880, Intermediate R.I.B.A.

(c) JUNIOR ARCHITECTURAL ASSISTANT, the General Division of Salaries according to age and experience; eligible for Probationership R.I.B.A.

Applicants to have the appropriate qualifications as quoted and salaries above the minimum of the Grade may be considered.

Interesting, contemporary work. Superannuable posts. Medical examination. Municipal experience not essential.

Full particulars to City Architect, Suffolk House, Greyfriars, Gloucester, not later than TUESDAY, 30th AUGUST, 1960.

CRANBROOK
RURAL DISTRICT COUNCIL.

ARCHITECTURAL/TECHNICAL ASSISTANT.

Applications are invited for the appointment of ARCHITECTURAL/TECHNICAL ASSISTANT in the Architect's Department of the above Authority at a salary in accordance with A.P.T. Grade II (£765-£880 per annum), to be fixed having regard to the qualifications and experience of the successful candidate.

The appointment is subject to a medical examination and determination by one calendar month's notice on either side.

Applications, stating age, experience, and names and addresses of two referees, must reach the undersigned not later than 3rd SEPTEMBER, 1960.

F. G. BANFIELD,
Clerk to the Council.

Council Offices,
Hill House,
Cranbrook,
Kent.
3rd August, 1960.

HAMPSTEAD
METROPOLITAN BOROUGH.

Applications are invited for following vacancies in Housing Architect's Department:—

(1) JUNIOR ARCHITECTURAL ASSISTANT (PERMANENT). General Division (£210-£730 p.a. plus London Weighting).

(2) ARCHITECTURAL ASSISTANT (TEMPORARY) on A.P.T. Grades I/II (£610-£880 p.a. plus London Weighting) for Intermediate R.I.B.A., or Special Scale (£785-£1,070 plus London Weighting) for Final R.I.B.A.

Commencing salaries according to qualifications and experience.

Applications, giving training, experience, previous appointments and names of two referees, to Town Clerk (B), Town Hall, Haverstock-hill, N.W.3, by 7th SEPTEMBER, 1960. No housing provided.

EAST HAM
COUNTY BOROUGH.

APPOINTMENT OF ARCHITECTURAL ASSISTANT—HOUSING DEPARTMENT.

Applications are invited. Salary in accordance with Grade A.P.T. III (£845-£1,065 per annum) plus London Weighting.

Applicants should preferably be Associates of the Royal Institute of British Architects, be competent draughtsmen, and have had experience of design, construction and supervision of erection of housing schemes.

Further particulars and application form (returnable by 5th SEPTEMBER, 1960) from the Town Clerk, Town Hall, East Ham, E.6.

OXFORDSHIRE
COUNTY COUNCIL.

COUNTY ARCHITECT'S DEPARTMENT.

Applications are invited for the following:

(a) ASSISTANT QUANTITY SURVEYOR, A.P.T. Grade III (£880-£1,065).

(b) ASSISTANT QUANTITY SURVEYOR, A.P.T. Grade II (£765-£880).

(c) QUANTITY SURVEYOR'S ASSISTANT, Misc. Div. V (£650-£715).

Applicants for appointment (a) must have passed a suitable professional final examination, for (b) must have passed the appropriate intermediate examination, and for (c) must have experience in abstracting, billing, interim valuations and final accounts.

Applications giving two referees and one recent testimonial must give details of qualifications, education, experience, age and relevant particulars, must reach the County Architect, Park End-street Offices, Oxford, within fourteen days of the appearance of this advertisement.

GERALD GALE BURKITT,
Clerk of the Council.

County Hall,
Oxford.
August, 1960.

COUNTY BOROUGH OF CROYDON

ARCHITECTURAL STAFF

APPLICATIONS are invited for these appointments on the Corporation's Housing and General Architectural work which includes a considerable variety of large interesting projects.

(a) **ASSISTANT ARCHITECTS** (Team Leaders), R.I.B.A. Final required, A.P.T. V (£1,265—£1,420 including "London Weighting").

(b) **ARCHITECTURAL ASSISTANTS**, A.P.T. I/II/III/IV (£610—£1,200) plus "London Weighting" up to £45. "Essential user" car allowance payable for appointments (a); similar allowance for appointments (b) when graded in A.P.T. IV with R.I.B.A. final.

Pensionable posts; commencing salaries according to qualifications and experience. Five-day week (38 hours).

HOUSING—advances up to 100% of Borough Valuer's valuation will be made available where needed for the purchase of suitable houses in Croydon by successful applicants.

Further particulars and application forms from the Borough Engineer, Town Hall, Croydon. Closing date 1st September, 1960.

E. TABERNER, Town Clerk.

DUSTON, NORTHAMPTON.
ST. CRISPIN HOSPITAL.

Applications are invited for the post of **BUILDING SUPERVISOR** who will be responsible for the building maintenance work of the hospital, including the preparation of Specifications and Contracts for such work, the preparation of Building Maintenance Estimates, direction of building trade labour (approximately 40 tradesmen), preparation of Drawings, Specifications and Contracts for Minor Capital Works and supervising the execution of Capital Works of moderate size and the maintenance of such records, etc., as required. Applicants must have served a full apprenticeship followed by experience as a craftsman in an appropriate trade and must also have had experience as General Foreman in the carrying out of Buildings Contracts. The Ordinary National Certificate in Building or a comparable qualification is desirable.

Salary: £790 x £30 (5) to £940 per annum.

The terms and conditions of service are governed by the Whitley Councils for the Health Service (Great Britain) and the salaries are based on a bed or pointage basis. A new Mental Deficiency Hospital for 400 beds is to be built to come within the control of the Building Supervisor.

Applications must be on a form to be obtained from the undersigned and returned not later than 5th SEPTEMBER, 1960.

F. J. CURTIS,
Group Secretary.

St. Crispin Hospital,
Duston,
Northampton.

LONDON
COUNTY COUNCIL.

LANDSCAPING AND GROUNDWORK ASSISTANTS for preparation of working drawings and specifications and supervision of contracts on new parks, gardens and playing fields. Good background in horticulture valuable.

Up to £950 a year in the first instance according to qualifications and experience.

Prospects of higher pay and promotion according to ability and output.

Also vacancies for ARCHITECTURAL ASSISTANTS at similar rates of pay.

Apply Chief Officer (A1/8 2111/8), Parks Department, County Hall, London, S.E.1. (WATerloo 5000, ext. 8076.)

MANCHESTER
REGIONAL HOSPITAL BOARD

invite applications for three posts of ENGINEERING CLERKS OF WORKS (Electrical and Mechanical) in connection with the hospital capital building programme. Salary £800 x £40(5) x £50(1)-£1,050. National Health Service conditions and superannuation. Application forms obtainable from the Secretary of the Board, Cheetham-road, Manchester, 8, to whom they should be returned by 6th SEPTEMBER, 1960.

NORTHAMPTON
COUNTY BOROUGH.

THREE SENIOR ASSISTANT ARCHITECTS.
A.P.T. IV-V (£1,065-£1,375).

Applications are invited for these appointments in Northampton which has an interesting programme of new schools, Municipal buildings and multi-storey flats in redevelopment schemes.

Commencing salaries will depend upon ability and experience.

Full particulars and application forms, returnable by 5th SEPTEMBER, from Borough Architect, Guildhall, Northampton.

C. E. VIVIAN ROWE,
Town Clerk.

ISLE OF WIGHT
COUNTY COUNCIL.

Vacancy for **DRAUGHTSMAN** (male or female) in County Planning Officer's Department; general experience of tracing and map work required. Salary A.P.T. I (£610 x £30(4) x £35(1)-£765).

Applications stating full particulars and names of two persons to whom reference may be made to reach the Clerk of the County Council, County Hall, Newport, I.W., by 30th AUGUST, 1960.

MINISTRY OF WORKS

require **SURVEYORS (BASIC GRADE)** in LONDON, HOME COUNTIES and ABERDEEN. National salary scale £805 (at age 25) to £1,260 per annum. Starting pay up to £1,095 at age 34, according to age and experience. Salary for London posts is subject to an addition of up to £40 per annum. Five-day week, twenty-two days' annual leave. Prospects of promotion and opportunities for permanent and pensionable posts.

Applicants should be Registered Architects by examination or Corporate Members of R.I.C.S. (Building Section). Apply stating age, qualifications and full details of experience to Chief Maintenance Surveyor (Recruitment), Ministry of Works (B), Stanley House, Marsham-street, London, S.W.1.

BIRMINGHAM
REGIONAL HOSPITAL BOARD.

APPOINTMENT OF ARCHITECTURAL STAFF.

The Board envisage an expansion in their hospital building programme. A large proportion of the work will be designed and supervised by the staff of the Regional Architect's department and a number of new appointments have recently been made. Further appointments are now proposed and applications are invited for the following:—

1. SENIOR ASSISTANT ARCHITECTS, salary scale £1,300 to £1,600. Qualifications: Registered architect by examination. (Arch. 12)

2. ASSISTANT ARCHITECTS, salary scale £905 to £1,310. Qualifications: Registered architect by examination. (Arch. 13)

3. SENIOR ASSISTANT LAND SURVEYOR, salary scale £1,300 to £1,600. Qualifications: Corporate membership of the R.I.C.S. (Arch. 14)

4. LAND SURVEYING ASSISTANT, salary scale £625 to £900. Qualifications: Intermediate examination of the R.I.C.S. or an examination giving exemption therefrom. (Arch. 15)

5. ASSISTANT QUANTITY SURVEYORS, salary scale £905 to £1,310. Qualifications: Corporate membership of the R.I.C.S. (Arch. 16)

6. ARCHITECTURAL DRAUGHTSMEN, salary scale £475 to £685. Qualifications: Suitable training, including three years' technical experience in architectural drawing office. (Arch. 17)

These posts are not necessarily restricted to those with previous hospital experience. They offer opportunities for gaining knowledge and experience of the whole field of hospital architecture, ranging from adaptation schemes to comprehensive new hospital projects and including ward units, operating theatres, outpatient departments, maternity units, X-ray departments, kitchens, boilerhouses, staff housing accommodation and numerous other types of building.

All posts superannuable, five-day week, generous annual leave. Applications, quoting appropriate reference, to Secretary, Birmingham Regional Hospital Board, 10 Augustus-road, Edgbaston, Birmingham, 15, by 12th SEPTEMBER, 1960, stating qualifications, age, experience, present position and salary, and names of two referees.

THE COAL UTILISATION
COUNCIL

is expanding yet again to cope with the many opportunities in the market for domestic solid fuel. We are a friendly and active non-commercial organisation. 19 days' holiday a year. Optional pension fund.

Some of the people we are looking for, and the minimum commencing salaries we have in mind are:

THREE TECHNICAL INSTRUCTORS based on London but prepared to travel to all parts of the country to give technical courses of instruction on modern domestic heating equipment, its selection, operation and installation. Applicants should have a good educational and technical background and ability to lecture. £800-£900.

TWO TECHNICAL LECTURERS based on Leeds and Manchester. These will be required to give lectures and advice to the building trade on fixing domestic solid fuel appliances and help operate the training scheme for appliance fixers. Good knowledge of solid fuel domestic appliances and lecturing and practical fixing experience essential. Car supplied, good subsistence arrangements. £750.

Apply to C.U.C., 3 Upper Belgrave-street, S.W.1 (SLOane 9116) for an application form and fuller particulars of the post(s) you are interested in.

BEDFORDSHIRE
COUNTY COUNCIL.

Applications are invited from Associates of the Royal Institute of Chartered Surveyors for appointments of SENIOR QUANTITY SURVEYORS, Grade A.P.T. V (£1,220-£1,375) and A.P.T. IV (£1,065-£1,220).

Suitable candidates will be appointed to Grades and points within Grades according to experience.

Application forms obtained from the County Architect, Shire Hall, Bedford, to be returned within fourteen days of the appearance of this advertisement.

AIR MINISTRY

Works Design Branch Requires in LONDON and PROVINCES ARCHITECTURAL ASSISTANTS with adequate training and drawing office experience. O.N.C. (Building) an advantage. Work includes site layouts, sketch plans, working drawings and details for variety of technical and domestic buildings in permanent and semi-permanent construction. Financial assistance and time off given for recognised courses of study. Promotion and pension prospects. 5-day week with 18 days' paid leave per year initially. Overseas tours for which special allowances granted. Salary in LONDON ranges from £680 (age 25) to £900 p.a. for men; from £673 to £868 p.a. for women; somewhat lower in PROVINCES. Commencing salary dependent on age, qualifications and experience. Applicants, who must be natural born British subjects, should write to AIR MINISTRY, W.G.d., Lacon House, Theobald's-road, London, W.C.1, or apply to any Employment Exchange quoting Kings Cross 801 giving age, details of training, qualifications, full particulars of former posts held and copies of any testimonials. Candidates selected will normally be interviewed in London and certain expenses reimbursed.

LONDON
CORPORATION.

PERMANENT STAFF.

Applications are invited for appointment of a SENIOR ASSISTANT ARCHITECT in Building and Architectural Division—City Surveyor's Office. Candidates must have passed final R.I.B.A. Salary up to £1,375, point of entry dependent upon age and experience.

Applications with relevant particulars, including names and addresses of two referees to the City Surveyor, Guildhall, London, E.C.2, within 14 days.

LEWISHAM
METROPOLITAN BOROUGH.

CLERK OF WORKS on temporary staff—salary £625-£805 per annum.

Write giving full particulars of age, experience, etc., to Borough Architect, Lewisham Town Hall, Catford, S.E.6.

BRIGHTON
COUNTY BOROUGH.

CLERK OF WORKS (Temporary Staff) required for a period of approximately 2 years on the erection of a new College of Technology. The building will be of reinforced concrete construction with highly specialised services and is expected to cost about £1m.

It is essential that applicants have had experience on large contracts of similar construction.

Salary £16-20 per week according to experience.

Appointment terminable by one month's notice on either side. Canvassing will disqualify.

Applications giving full particulars including age, experience, etc., to D. J. Howe, Esq., M.I.C.E., M.I.Mun.E., Borough Surveyor, Engineer and Planning Officer, 26-30 King's-road, Brighton, by noon on the 7th SEPTEMBER, 1960.

W. O. DODD,
Town Clerk.

Town Hall,
Brighton.
11th August, 1960.

CHESTERFIELD
RURAL DISTRICT COUNCIL.

ASSISTANT ARCHITECT,
GRADE A.P.T. IV (£1,065-£1,220).

Applications are invited for the above appointment in the Department of the Engineer and Surveyor, J. B. Wikeley, M.Eng., M.I.C.E., Barrister at Law.

Candidates must have passed the final examination of the Royal Institute of British Architects or the equivalent at a recognised school of architecture.

National conditions of service and alternate Saturday morning leave.

The Council is prepared to assist with HOUSING ACCOMMODATION and reimburse house REMOVAL EXPENSES.

Detailed application including the names and addresses of two referees to be received by the undersigned not later than the 29th AUGUST, 1960.

Sgd. H. O. HAWKINS,
Clerk of the Council.

Rural Council House,
Saltergate,
Chesterfield.

ESSEX
COUNTY COUNCIL.

Required on established staff of County Architect's Department under the Chief Quantity Surveyor:

(a) SECTIONAL ASSISTANT QUANTITY SURVEYOR, J.N.C. Scale B. Salary up to £1,485.

(b) ASSISTANT QUANTITY SURVEYOR, Special Grade. Salary up to £1,070.

Candidates for (a) required for taking-off and billing, measuring and adjusting variations, interim certificates; and for (b) similar duties in connection with minor works.

Application forms from H. Conolly, F.R.I.B.A., County Architect, County Hall, Chelmsford, Essex (state post for which form is required), returnable with copies of three testimonials by 2nd SEPTEMBER, 1960.

LONDON
COUNTY COUNCIL.

ARCHITECT'S DEPARTMENT.

BUILDING SURVEYING ASSISTANTS required for inspection of buildings for major maintenance and repair works, minor alterations and redecoration. Work involves preparation of specifications and estimates (in most cases based on a schedule of prices), and supervision of works by contractors and direct labour. Up to £950. Form, returnable by 31st AUGUST, from Architect to Council (EK/B/2141/8), County Hall, S.E.1.

CLERKS OF WORKS
BUILDING

are required by
MINISTRY OF WORKS
in ENGLAND and WALES.

London commencing salary normally £875 per annum aged 28 or over, rising to £975 after four years. Outside London slightly less. Exceptionally well qualified men may be paid a higher commencing salary. Prospects of promotion to posts with salaries of £1,115 and above.

Five-day week, 3½ weeks' annual leave. Opportunities for permanent posts with a non contributory pension scheme and of service overseas.

Applicants must possess the O.N.C. Building, or a Final City and Guilds Certificate in a craft, or an equivalent qualification, and have had at least three years' supervisory experience on large scale building sites.

APPLICATIONS: Send postcard for further details and application form to: Chief Works Engineer, Ministry of Works, Room 205, Cleland House, Page-street, London, S.W.1.

STAFFORDSHIRE
COUNTY COUNCIL.

COUNTY ARCHITECT'S DEPARTMENT.
APPOINTMENT OF ASSISTANT QUANTITY SURVEYOR,
GRADE A.P.T. IV (£1,065-£1,220).

An excellent opportunity exists in the Quantity Surveyor's section of the Architect's Department for a CHARTERED QUANTITY SURVEYOR seeking a position in a busy and expanding office. The work involves Taking Off quantities for a very wide variety of buildings, many in the region of £300,000 in value. Good working conditions in a pleasant County town.

The County Council are prepared to grant a lodging allowance of 35s. per week to married applicants maintaining a home outside the geographical County for a period of six months, also second-class rail travel home every second month during the initial six months. The Council are also prepared to give consideration to the granting of financial assistance in appropriate cases towards removal expenses.

The Council has a scheme for loans to employees wishing to purchase their own houses.

Forms of application, which must be returned by the 29th AUGUST, 1960, may be obtained from the County Architect, Green Hall, Lichfield-road, Stafford.

T. H. EVANS,
Clerk of the County Council.

SURREY COUNTY COUNCIL

Applications invited from persons with necessary qualifications for appointment as

ASSISTANT ARCHITECTS

GRADE V (£1,220—£1,375 p.a. plus £45 p.a. London Allowance). Must be A.R.I.B.A.

Applications stating fully age, qualifications, experience and present salary, accompanied by copies of three testimonials to **County Architect, County Hall, Kingston** as soon as possible.

BRIXTON SCHOOL OF BUILDING.

Required September, 3 ASSISTANTS, GRADE B, for Department of Architecture and Surveying; should be corporate members of either R.I.B.A. or R.I.C.S., preferably with one of the following interests: (a) Construction, (b) Services, (c) Law and Economics.

Salary scale, £700 x £27 10s. to £1,150 plus London allowance and additions for training and qualifications. Increments within scale for experience.

Application forms (foolscap s.a.e.) from Secretary at the School (FE3/B/2100/8), Ferndale-road, S.W.4.

Closing Date—1st SEPTEMBER.

OXFORDSHIRE COUNTY COUNCIL.

COUNTY ARCHITECT'S DEPARTMENT.
CLERK OF WORKS.

Applications are invited for this post to supervise the completion of a Technical College, additions to a Grammar School and a Secondary School at Banbury, and a small village school at Steeple Aston (total value approximately £200,000). Probable duration of appointment 15-18 months. Salary not exceeding £15 15s. per week, subject to usual deductions. Car allowance on Council's scale. Appointment subject to satisfactory medical examination, and terminable by one month's notice on either side.

Application forms obtainable from the County Architect, Park End-street Offices, Oxford, should be returned within fourteen days of the appearance of this advertisement.

GERALD GALE BURKITT,
Clerk of the Council.

County Hall,
Oxford.
August, 1960.

STEPNEY M.B.C.

require temporary ARCHITECTURAL ASSISTANT with suitable qualification and experience for design and construction of point blocks of flats. Salary £1,110-£1,265. Apply to Borough Engineer, at Municipal Offices, 227 Commercial-road, E.1.

SOUTHALL BOROUGH.

APPOINTMENT OF ARCHITECTURAL ASSISTANT.

Applications are invited for the above appointment on the Permanent Staff of the Corporation. Salary in accordance with the A.P.T. Grade II (£765-£880), plus London Weighting.

Candidates should have passed the Intermediate examination of the Royal Institute of British Architects or an equivalent and have had practical experience of design and construction.

Applications, on forms to be obtained from the Borough Engineer and Surveyor, Town Hall, Southall, must be returned to him on or before 30th AUGUST, 1960.

J. S. SYRETT,
Town Clerk.

WILLENHALL URBAN DISTRICT COUNCIL.

APPOINTMENT OF CLERK OF WORKS.

Applications are invited for the appointment of a CLERK OF WORKS in the Architect's Department at a salary in accordance with Grade Miscellaneous VI of the National Scales commencing at £715 per annum. Applicants must have had good experience in the supervision of building contracts. The appointment will be subject to the Local Government Superannuation Acts, the National Scheme of Conditions of Service and to termination by one month's notice on either side. Two-thirds of removal expenses will be paid if necessary.

Applications stating age, experience and qualifications, together with the names and addresses of two persons to whom reference may be made should reach the undersigned not later than 5th SEPTEMBER, 1960.

JOHN R. RIDING,
Clerk of the Council.

Town Hall,
Willenhall,
Staffs.

ILFORD BOROUGH.

BOROUGH ENGINEER'S DEPARTMENT.
ASSISTANT ARCHITECT,
GRADE A.P.T. II-III (£765-£1,065).

Candidates should have passed the Intermediate Examination of the R.I.B.A. or equivalent. Commencing salary within the scales according to qualifications and experience. London Weighting payable in addition. Five-day week.

The candidate appointed will be required for specific work in connection with the design and working drawings for a scheme comprising New Public Baths and Library at Fullwell Cross.

THE COUNCIL IS PREPARED TO CONSIDER, IF NECESSARY, THE PROVISION OF HOUSING ACCOMMODATION.

The appointment will be subject to one month's notice on either side, the provisions of the Local Government Superannuation Acts, National Conditions of Service and medical examination.

Application forms obtainable from the Borough Engineer, Town Hall, Ilford, should be returned not later than 5th SEPTEMBER.

KENT COUNTY COUNCIL.

ARCHITECTS are required in the office of the County Architect to assist with the Council's expanding building programme which includes schools, colleges, residential homes and other public buildings. The salary range extends to £1,375 a year, the starting grade and salary depending on qualifications, ability and experience.

Application forms and further details from the County Architect, Springfield, Maidstone. Closing date 30th AUGUST, 1960.

STEPNEY M.B.C.

require temporary BUILDING SURVEYING ASSISTANT with suitable qualification and experience for preparation of drawings and specifications for the improvement and conversion of residential properties. Salary £830-£1,115. Apply to Borough Engineer at Municipal Offices, 227 Commercial-road, E.1.

NEWCASTLE-UNDER-LYME BOROUGH.

Applications are invited for the appointment of ASSISTANT BUILDING INSPECTOR within the Grade A.P.T. I (£610-£765 per annum).

Candidates should have extensive experience in the building trade and a knowledge of building by-laws.

Preference will be given to candidates having previous experience as Building Inspectors and/or holding the Building Inspector's Certificate of the Institution of Municipal Engineers or equivalent qualification.

Application forms and Conditions of Appointment may be obtained from the Borough Engineer and Surveyor, Lancaster Building, High-street, Newcastle, Staffs., and must be returned to him not later than WEDNESDAY, 7th SEPTEMBER, 1960.

C. J. MORTON,
Town Clerk.

ASHINGTON URBAN DISTRICT COUNCIL.

APPOINTMENT OF ASSISTANT ARCHITECT.

Applications are invited for the above appointment at a salary in accordance with A.P.T. Grade III (£880-£1,065) or within the Special Grade (£785-£1,070 per annum) according to qualifications and experience.

Housing accommodation will be available if required.

Applicants should have general experience in the preparation of specifications for Municipal housing schemes and should have passed the Intermediate R.I.B.A. Examination.

Forms of application may be obtained from the Engineer and Surveyor's Department, Council Offices, Ashington, Northumberland, returnable by 31st AUGUST, 1960.

JOHN KENT,
Clerk to the Council.

BRISTOL CITY AND COUNTY.

ARCHITECT'S COMMITTEE.

Applications invited for the following permanent staff appointments from applicants who have the qualification shown or equivalent qualification:

SENIOR ASSISTANT ARCHITECTS, Special Scale (£785-£1,070 p.a.)—Parts I and II Final R.I.B.A.

ARCHITECTURAL ASSISTANTS, Grade A.P.T. II (£765-£880 p.a.)—Intermediate R.I.B.A.

ARCHITECTURAL ASSISTANT, Grade A.P.T. I (£610-£765 p.a.)—Intermediate R.I.B.A.

SENIOR QUANTITY SURVEYORS, Special Scale (£785-£1,070 p.a.)—Final R.I.C.S.

QUANTITY SURVEYOR'S ASSISTANT, Grade A.P.T. I (£610-£765 p.a.)—Intermediate R.I.C.S.

LAND SURVEYOR, Grade A.P.T. I (£610-£765 p.a.) — Intermediate R.I.C.S. (Land Surveying or Building Surveying Section).

JUNIOR ASSISTANTS, General Division. Duties include assisting with surveys and generally to work under the supervision of an Assistant Architect. Preference will be given to applicants experienced in land surveying.

Starting salary in General Division at 20 not less than £370 p.a. on scale rising to £655 p.a. University School Certificate or good G.C.E. essential.

The department has an interesting and varied programme of work including the design and construction of Colleges of Art and Further Education, Secondary Schools, Markets, Baths, Libraries and redevelopment projects including blocks of dwellings up to 15 storeys. Facilities will be given for design and contract experience and good opportunities exist for men with drive and initiative to assist in works of major architectural importance.

FIVE-DAY WEEK. ASSISTANCE WITH REMOVAL EXPENSES. HOUSING ACCOMMODATION AVAILABLE, IF NECESSARY, AT AN ECONOMIC RENT.

Details and application forms returnable by 12th SEPTEMBER, from City Architect, Council House, Bristol, 1.

ESSEX COUNTY COUNCIL.

CLERK OF WORKS on the temporary staff required for contracts in the Grays, Hornchurch and Basildon areas. Commencing salary according to qualifications and experience but not exceeding £880.

Candidates must have had practical training and experience in one of the main building trades and also experience in supervision.

Application form from H. Conolly, C.B.E., F.R.I.B.A., County Hall, Chelmsford, returnable by 2nd SEPTEMBER, 1960.

HARROW BOROUGH.

Requires the following staff for employment on work of a varied nature in the Borough Engineer and Surveyor's Department:—

(a) SENIOR ARCHITECTURAL ASSISTANT, Special Grade (£830 to £1,115 per annum).

(b) ARCHITECTURAL ASSISTANT, A.P.T. Grade I (£625 to £805 per annum).

Commencing salaries in accordance with qualifications, age and experience.

The Council is unable to provide housing accommodation but a contribution towards removal expenses will be considered.

The appointments will be subject to the Local Government Superannuation Acts and the National Joint Council's Scheme of Conditions of Service.

Application forms obtainable from me, to whom they should be returned by 3rd SEPTEMBER, 1960.

D. H. PRITCHARD,
Town Clerk.

Town Clerk's Office,
Harrow Weald Lodge,
Harrow,
Middlesex.

OLDHAM COUNTY BOROUGH.

BOROUGH ENGINEER AND SURVEYOR'S DEPARTMENT.
APPOINTMENT OF SENIOR ARCHITECTURAL ASSISTANT.

Applications are invited from qualified persons for the above appointment which involves the design and carrying out of architectural works of major importance in the town, and the successful candidate will be offered a salary in the upper limits of the Special Classes Grade (£785-£1,070), in accordance with experience.

The National Conditions of Service and Local Government Superannuation Acts will apply and the appointment will be subject to a satisfactory medical examination.

Housing accommodation is available if required.

Applications, endorsed "Senior Architectural Assistant," together with the names of two referees, should reach me not later than FRIDAY, the 2nd SEPTEMBER, 1960.

A. L. HOBSON,
Borough Engineer and Surveyor.

75 Union-street,
Oldham.

OLDHAM COUNTY BOROUGH.

BOROUGH ENGINEER AND SURVEYOR'S DEPARTMENT.
APPOINTMENT OF BUILDING INSPECTOR.

Applications are invited for the appointment of BUILDING INSPECTOR in my Department at a salary within Grades A.P.T. I and II (£610 rising to £880 per annum).

The duties associated with the vacant post are mainly concerned in dealing with applications for Improvement Grants. Applicants should preferably hold a Building Inspector's qualification or equivalent and the successful candidate will be placed on an increment within the Grades according to his experience and/or qualification.

Applicants must have had experience in the supervision of building operations and in the examination of plans, and experience with Building Byelaws and the Public Health Acts will be considered an asset.

The appointment is superannuable, subject to the passing satisfactorily of a medical examination and is terminable by one month's notice on either side.

Applications, stating age, qualifications and experience, must be accompanied by the names of two persons to whom reference may be made, and should reach me not later than FRIDAY, the 2nd SEPTEMBER, 1960, in envelopes endorsed "Building Inspector."

A. L. HOBSON,
Borough Engineer and Surveyor.

GLOUCESTERSHIRE COUNTY COUNCIL.

APPOINTMENT OF HEATING AND VENTILATING ENGINEERING ASSISTANT.

Applications are invited for the above appointment in A.P.T. Grade III (£880-£1,065) progressing to A.P.T. Grade IV (£1,065-£1,220), subject to satisfactory report on reaching appropriate incremental point in Grade.

Applicants must be Associate Members I.H.V.E. and a knowledge of electrical work will be an advantage. N.J.C. Service Conditions, superannuation, medical examination.

Applications, stating age, present position, salary and date of appointment, details of experience and previous appointments, together with the names and addresses of two persons for reference, to reach County Architect, Shire Hall, Gloucester, by 3rd SEPTEMBER, 1960.

GUY H. DAVIS,
Clerk of the County Council.

ARCHITECTS AND MAINTENANCE SURVEYORS..

Pensionable posts for men and women at least 25 and under 35 on 1.1.60 (extension for regular Forces service). Overseas Civil Service, established Civil Service and temporary Government service as Architect or Maintenance Surveyor). Candidates must be registered Architects or, alternatively, for Maintenance Surveyor posts, have achieved Corporate membership of R.I.C.S. (Building Section), or have passed examinations necessary for attaining Corporate membership. Salary (men, London) £830-£1,125 according to age, rising to £1,300. Promotion prospects. Write Civil Service Commission, 17 North Audley Street, London, W.1, for application form quoting S/60-61.

OVERSEAS PUBLIC APPOINTMENTS

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Candidates 22-45, must possess Final C. & G. or O.N.C. in Building. Teaching certificate or teaching experience desirable. Duties will be teaching students taking C. & G. and O.N.C. courses.

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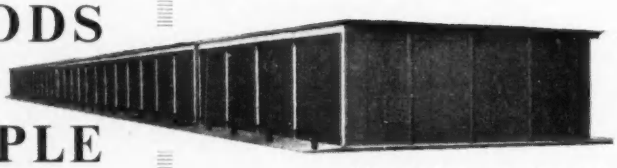

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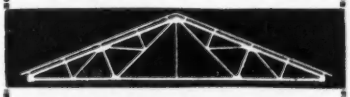

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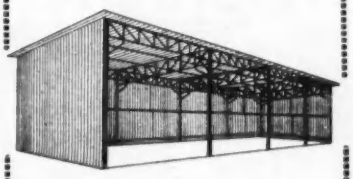

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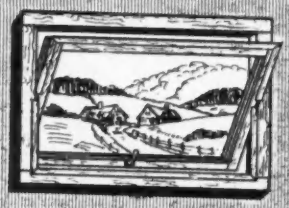

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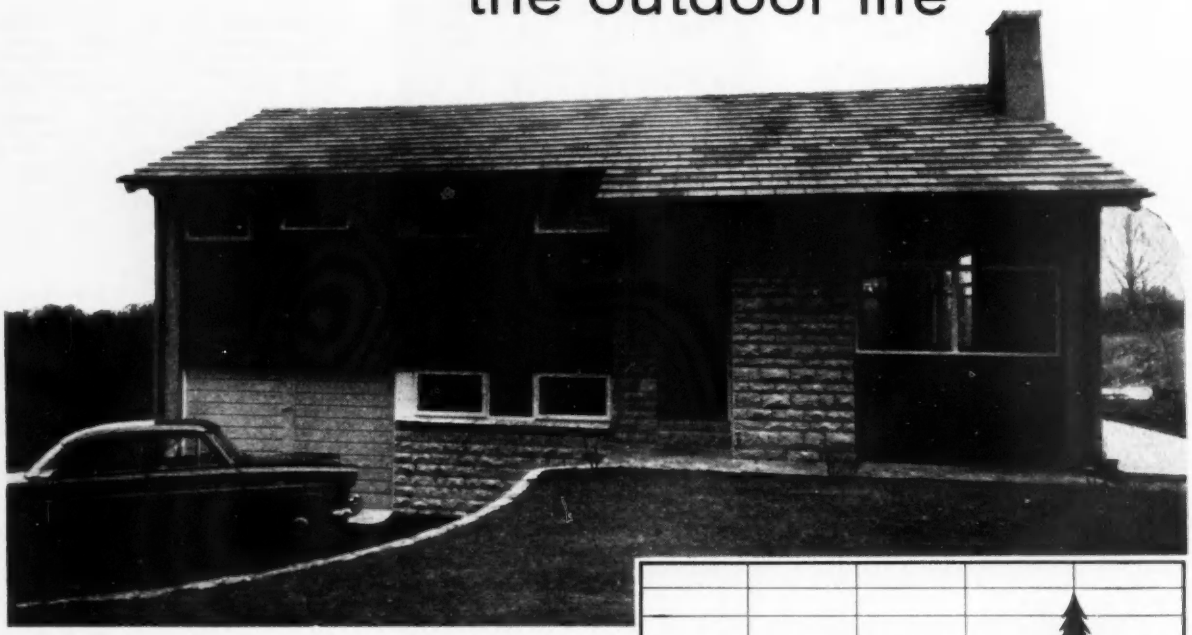

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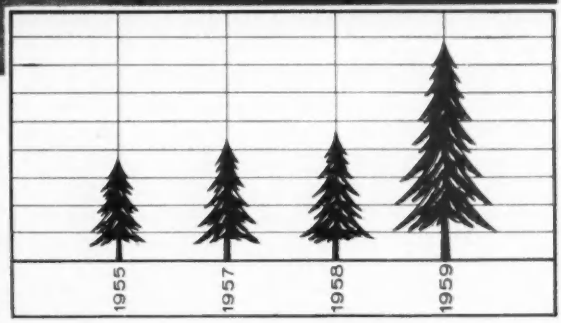

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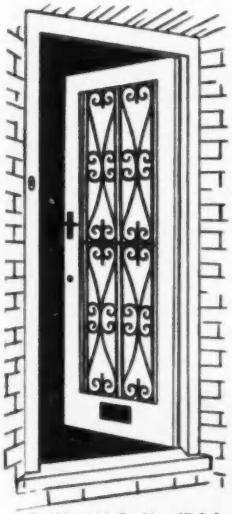

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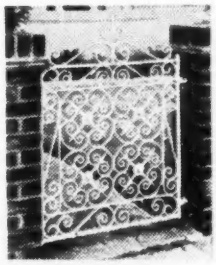

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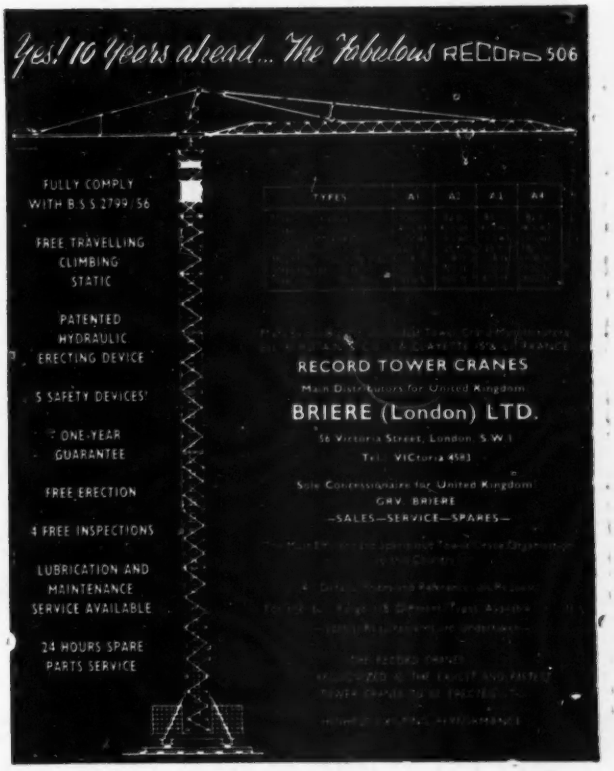

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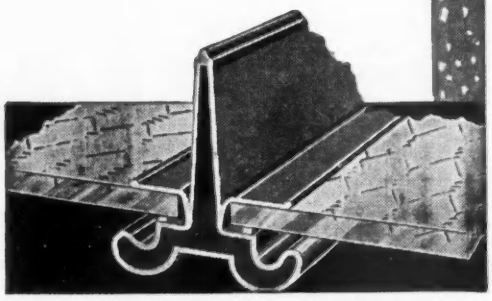

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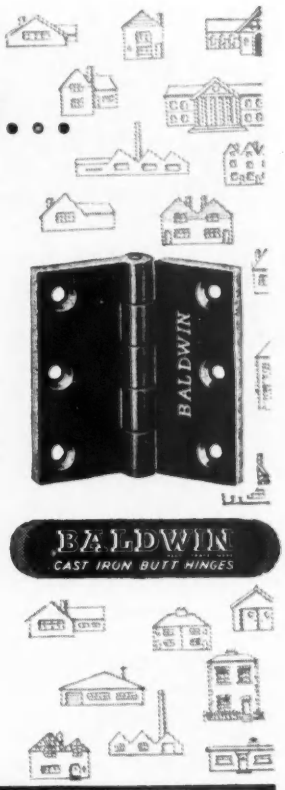

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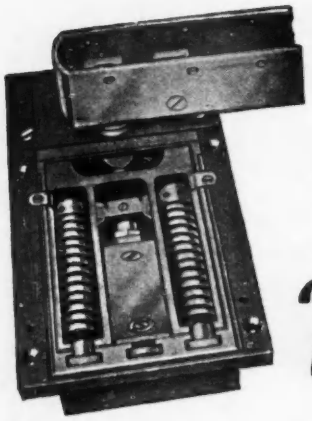

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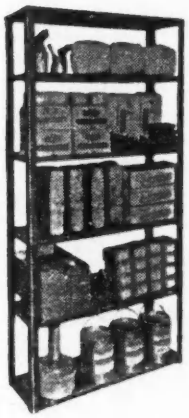

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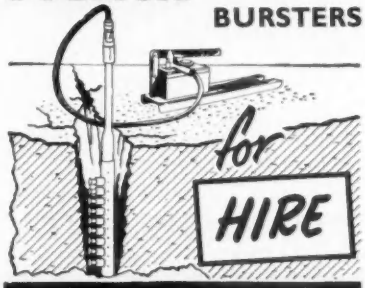

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All posts are permanent and with excellent prospects. Reply in confidence stating experience, age, salary required and post applied for to Area Manager, Derek Crouch (Contractors) Limited, Station Road, Birtley, Co. Durham.

CHARTERED QUANTITY SURVEYOR, London, W.C.1 area, Requires A.R.I.C.S. willing to develop new methods of preparation of B/Q and final accounts. State scholastic and professional education and experience and when free.—Box 1032, "The Builder."

QUANTITY SURVEYING STAFF Required by Consulting Civil Engineers. (a) ASSISTANT QUANTITY SURVEYORS. Salary £750-£1,000 p.a. (b) WORKER-UP. Salary £650-£800 p.a. (c) CLERICAL ASSISTANT. Salary £500-£650 p.a. The work involved comprises the preparation of engineering Bills of Quantities for works of sewerage, sewage disposal and water supply. Some previous experience is essential. Salaries in accordance with age and experience. Luncheon voucher scheme. Applications in writing stating age, experience and salary required to D. BALFOUR & SONS, MM.I.C.E., Consulting Engineers, 131 Victoria-street, Westminster, S.W.1.

LONDON CHARTERED QUANTITY SURVEYORS Require young QUANTITY SURVEYOR (A.R.I.C.S.) for one of their offices abroad. Opportunities for advancement. Fares and accommodation paid. Salary £1,500-£1,600 per annum.—Reply stating age, experience and whether married, to Box 831, "The Builder."

JUNIOR QUANTITY SURVEYOR Required by professional office in West End. About final examination stage, to work under supervision of Chartered Senior. Salary in the range of £850 per annum. Five-day week. Overtime at time and half. —Box 833 "The Builder."

CHARTERED QUANTITY SURVEYOR Required by West End professional office. At least two years' experience since qualifying. Five-day week. Overtime at time and half. Salary in the range of £1,200-£1 500 per annum.—Box 834, "The Builder."

ASSISTANT for Measuring and preparing final Accounts.—KNIGHT & BENWELL, 12 Queen-square, Brighton.

QUANTITY SURVEYOR. ASSISTANT QUANTITY SURVEYOR Required by major firm of Building and Civil Engineering Contractors, initially for extensive hydro-electric project near Inverness. This appointment will be permanent with good salary and conditions and entry into superannuation scheme after 12 months' service.—Applications giving details of training and experience will be treated in strict confidence and should be addressed to THE MITCHELL CONSTRUCTION COMPANY Ltd., Wharf Works, Peterborough, Northants.

ASSISTANT QUANTITY SURVEYOR. Intermediate Standard R.I.C.S., Advanced Stage. Required for estimating, taking-off, working-up and final account work. Varied and interesting building work. Salary by arrangement.—Please write, stating age, experience and qualification, to OVE ARUP & PARTNERS, 13 Fitzroy-street, London, W.1.

EXPERIENCED QUANTITY SURVEYOR Required capable of handling Interim and Final Accounts, five-day week, pension scheme.—Write, stating age, experience and salary required, to A. E. THORNTON-FIRKIN & PARTNERS, Library-street, Blackburn.

YOUNG QUANTITY SURVEYOR Required by established and growing company of Sports Field and Civil Engineering Contractors for preparation of interim certificates and final bills.—Apply, E. DOE & SONS (CONTRACTS), Ltd., Fyfield, Ongar, Essex. (Fyfield 238.)

QUANTITY SURVEYOR Required for Consulting Engineers' office. Interesting and varied work with good prospects. Five-day week; pension, life assurance and bonus schemes. —Reply stating age, experience and salary required to L. G. MOUCHEL & PARTNERS, Southbank House, Albert Embankment, London, S.E.11 or telephone Mr. Cuthbert, REL 7691.

QUANTITY SURVEYING ASSISTANT, Class 2. Required by LONDON TRANSPORT in Department of Architect. Applicants should be thoroughly experienced workers-up and able to assist in taking off under supervision. Membership of R.I.C.S. advantageous. Salary range £855-£1,251 p.a. Free travel; medical examination; contributory superannuation.—Applications within 7 days to Staff and Welfare Officer, LONDON TRANSPORT, 55 Broadway, S.W.1, quoting reference No. 108/2.

AUSTRALIA. Vacancies for TAKERS-OFF, see advert. under heading "Overseas Appointments."

QUANTITY SURVEYING ASSISTANT Required by West Surrey building contractors.—Box 840, "The Builder."

CHARTERED QUANTITY SURVEYOR Requires ASSISTANT TAKERS-OFF for housing, hotels, factories and other works. Head office: Southsea, Hants.—Box 1001, "The Builder."

Surveyor and Assistant Surveyor

Ford & Walton Ltd., require a

BUILDERS SURVEYOR

fully experienced in taking off quantities, interim applications and the preparation of final accounts, and able to work completely on his own initiative.

Also an

ASSISTANT SURVEYOR

This is an opportunity for a young man to widen his experience under the supervision of a Senior Surveyor. Employment will be at Stratford, E.15, until January, 1961, when the Company is moving to new headquarters being built at Wembley Park, Middlesex. Applications in own handwriting, stating age, experience, qualifications and salary required, should be addressed to

Chief Surveyor,
FORD & WALTON LTD.,
Walton House, Warton Road, Stratford,
London, E.15.

PRESTCOLD DIVISION

THE PRESSED STEEL COMPANY LIMITED

requires a

Building Surveyor

The successful candidate will be responsible to the Property Manager and his duties will be primarily concerned with the maintenance and alteration of properties used by the Division. Prestcold is an expanding Organisation and is in the process of appointing new Branches and Showrooms throughout the country.

Applicants, aged 24—28, should be experienced in the preparation of contract documents, including plans, the Supervision of work in progress and settling final accounts. Preference will be given to members of the Royal Institution of Chartered Surveyors.

The appointment will be based at Swansea, but some travelling throughout the United Kingdom will be necessary.

Please apply quoting reference No. B/0495, and stating age, experience and present salary to the

Personnel Officer,
PRESTCOLD DIVISION
Pressed Steel Co., Ltd.,
Swansea.

SURVEYORS

MEASURING SURVEYOR on W.D. Schedule Required by Chartered Quantity Surveyors.—Apply, MESSRS HARRIS ROURKE & SIMPSON, City Chambers, 35 Catherine-street, Salisbury, Wilts.

SURVEYOR Required for Premises Department of City insurance company. Age 22-25. Competence in preparation of specifications, working drawings for alterations, etc. essential. Non-contributory pension scheme. Five-day week.—Full particulars of experience, etc., and salary required, to Box 497, "The Builder."

MEASURING SURVEYOR/TAKER-OFF for London Quantity Surveyors, able to handle Interim Valuations, Deviations and Final Accounts. Must be willing to travel. Salary according to experience and ability.—Box 934, "The Builder."

SITE SURVEYOR Required by firm of Quantity Surveyors, Westminster. Starting salary £1,000 for the man with the requisite experience and qualifications. Luncheon vouchers.—Apply Box 935, "The Builder."

BUILDERS' SURVEYOR Required, conversant Site Measuring and Valuations, for medium-size London company.—Write stating age, salary, experience, Box 644, "The Builder."

MEASURING SURVEYORS Required for Valuations, Final Accounts and Taking-off Materials for ordering.—Apply to A. T. ROWLEY (LONDON) Ltd., Cambridge Works, Lordship-lane, N.17.

MEASURING SURVEYORS Required by Chartered Quantity Surveyors for work in Cardiff-Bridgend area. Five-day week. Details of age, experience and salary required to Box 692, "The Builder."

LONDON firm of Chartered Quantity Surveyors Require a MEASURING SURVEYOR for their office in the Midlands. Varied contracts. Experience in valuations for interim certificates and preparation of final accounts. Five-day week. Details to Box 704, "The Builder."

ASSISTANT BUILDING SURVEYOR, age about 25, Required for old-established medium-sized Building Contractors, S.E.1 district. Good salary and prospects.—Applications should be submitted in writing stating age, experience, salary required, etc., to Box 716, "The Builder."

EXPERIENCED COST AND BONUS SURVEYORS Required immediately for work mainly in the London area.—Apply stating age, experience and salary expected to Ref. DJB, Building Division, HOWARD FARROW Ltd., Highfield-road, Golders Green-road, N.W.11.

BONUS SURVEYOR Required for large London Contract. Good prospects and salary for experienced man. Pension scheme.—Apply Planning Officer, THE UNIT CONSTRUCTION CO., Ltd., Central Way, Fages-road, Feltham, Middlesex. Telephone FEL 5751.

MEASURING SURVEYOR (A.R.I.C.S. preferred) Required by London firm of Quantity Surveyors. 5-day week. Pension and Life Assurance scheme. Salary £1,650 per annum. Car provided.—Write, stating age and experience, Box 799, "The Builder."

GUILDFORD ARCHITECTS have vacancy for accurate and experienced SURVEYOR/DRAUGHTSMAN to undertake general draughting duties and to perform dimensional surveys, with levels, of building sites and existing structures.—Write, stating age, experience and salary required, to SCOTT BROWNRIGG & TURNER, 32 London-road, Guildford.

BUILDING SURVEYOR Required for the Estates Department of a large building company. The work will be in connection with the acquisition of property for development and will embrace taking-off quantities; the preparation of estimates for the subsequent building schemes; negotiations with sub-contractors and dealing with purchasers' variations. Good salary, car and pension scheme. Applications giving age and full details of experience should be sent to, The Estates Manager (Southern Region), THE UNIT CONSTRUCTION CO., Ltd., Central Way, Fages-road, Feltham, Middlesex.

W. & C. FRENCH, Ltd. urgently Require experienced BONUS SURVEYORS for both Building and Civil Engineering contracts operating in the Home Counties.—Apply, in writing, stating age, experience and salary required, to Personnel Manager, 50 Epping New-road, Buckhurst Hill, Essex.

OLD-ESTABLISHED firm of Westminster Surveyors Require the services of Intermediate and Junior BUILDING SURVEYORS. Salary according to age and experience.—Box 828, "The Builder."

MEASURING SURVEYOR Required in London office, capable of working up to and including final accounts.—Write, stating age, experience and salary required, to Box 844, "The Builder."

BUILDING SURVEYOR/DRAUGHTSMAN Required for work on housing projects.—Write giving full details of age, experience and salary required in confidence to ADKINS & SHAW, Ltd., St. James-road, Northampton.

SURVEYOR Required by large firm of Building Contractors for London area and outside districts. Knowledge of W.D. Schedules preferable.—Full details of qualifications and experience, to Box 860, "The Builder."

SURVEYOR, with experience in Estimating, Taking-off and general contract administration, Required by old-established West London Building Contractors. Pension scheme, luncheon vouchers, etc.—Write, stating age, experience, etc., Box 864, "The Builder."

A SURVEYOR

for builder's buying department in Cambridge area. This post is in a new department in an expanding firm.

Box 1021 'The Builder'

McMANUS & CO., Ltd., Requires SURVEYORS and COST SURVEYORS for work in their Potters Bar office on large housing estates, etc. Good salary and exceptional prospects.—Write stating age and experience to Chief Surveyor, McMANUS & CO., Ltd., Mimms Hall-road, Potters Bar, Middlesex.

PRESTON, Lancs. SURVEYOR wanted for site measuring, certificates and final accounts.—Apply A. S. WILSON AND PARTNERS, Chartered Quantity Surveyors, 8 Storeys-gate, Westminster, S.W.1.

YOUNG, ambitious SURVEYOR keen to make Contracts Management his career. Required to be trained for medium-size busy Building Contractors. —Write, stating age, experience and salary required, to Box 1015, "The Builder."

MULTIPLE COMPANY Requires ASSISTANT BUILDING SURVEYOR to undertake preparation of schemes for alterations and supervision of work to shop property.—Details of age, past experience, etc., to Box 893, "The Builder."

BUILDING SURVEYOR Required in Architects' Department of multiple shop company. Age 22-30. Must be competent to prepare specifications and working drawings for alteration works, used to site supervision and site works, some levelling involved. 5-day week; staff canteen. Reply, stating age, experience and salary required, to Box 1008, "The Builder."

SURVEYOR Required to take charge Accounts Department for efficient, progressive and old-established firm of Building Contractors, East London area. Preference given to applicants holding A.R.I.C.S. or A.I.L.O.B. Car provided. Contributory pension scheme.—Write, stating age and brief details of experience, to Box 1014, "The Builder."

JUNIOR MEASURING SURVEYOR Required for Painting and Decorating by old-established firm. —Applications, giving details of previous experience, etc., to Box 1019, "The Builder."

BUILDING SURVEYOR Required for Barking area, accustomed supervision of contracts, estimating and particularly clearing of final accounts. Five-day week; canteen facilities; pension scheme in operation. State experience, age, salary required.—Box 1025, "The Builder."

Lavender, McMillan (Cntrs.) Ltd.

require

Measuring Surveyors

Applications are invited for the above position. Applicants should be capable of taking off quantities, site measuring, preparation of valuation and the settlement of Sub-Contract accounts. There are two positions open — one at Head Office and one at Oxford. Apply in writing to The Secretary **Lavender, McMillan (Cntrs.) Ltd., 54 Cheam Common Road, Worcester Park, Surrey** stating age, experience and salary required.

ASSISTANT SURVEYORS

ASSISTANT SURVEYOR

Required by West End Building Contractors for measuring bonus work and as General Assistant to Senior Surveyor.

Good opportunity to widen experience on the £30,000 to £80,000 type of building contract.

Annual bonus on results and Pension Scheme.

Please reply to **Box No. 740 'The Builder'.**

ASSISTANT SITE SURVEYOR Required for Contractors in West London area. H.N.C. standard desirable.—Apply, stating age, experience and salary required to SHERMAN & CO. (EALING) Ltd., 14 Alexandria-road, W.13.

ASSISTANT BUILDING SURVEYOR or BUILDING DRAUGHTSMAN Required by Chartered Surveyors in South East London, having two or three years' practical experience in building construction and preparation of plans. Good opportunity for further experience.—Write, stating age and salary required, to Box 733, "The Builder."

ASSISTANT BUILDING SURVEYOR Required for Surveying Department of busy Architects' office in London. Able to prepare specifications, approximate estimates, check final accounts. Site Supervision of maintenance and alteration contracts. —Write, giving details of experience, etc., Box 815, "The Builder."

PROPERTY COMPANY, London. ASSISTANT SURVEYOR (Maintenance). Age 20/25.—Box 922, "The Builder."

ASSISTANT SURVEYOR Required by London Building Contractor for site measuring and as General Assistant to Senior Surveyor. Permanent and progressive position. Five-day week, superannuation after satisfactory probationary period.—Apply, stating age, experience and salary required, to Box 892, "The Builder."

A. J. WAIT & CO., LTD.

require

ASSISTANT SURVEYORS

for Contracts in the London and Home Counties area. Permanency and prospects for the right applicants.

Apply in writing, stating age, training experience and salary required to:

Chief Surveyor,
Wellington Crescent,
New Malden, Surrey.

ASSISTANT SURVEYOR Required for varied and interesting work including Taking-off, Site Measuring, Estimating, Bonusing, Planning and Job Management in all classes of building work. Excellent prospects to progress with this expanding group of Companies.—Apply to Mr. Lott, R. D. HOPE & CO., Ltd., 15 Selsdon-road, South Croydon, Surrey. CROydon 9262.

JUNIORS

JUNIOR, school-leaving age or otherwise. Required by London Quantity Surveyor. Good prospects for ambitious young man.—Apply Box 843, "The Builder."

PROGRESSIVE YOUNG MAN with some experience or technical knowledge to assist and learn in estimating and buying.—Write G. JACKSON & SONS, Ltd., Rathbone Works, Rainville-road, Hammersmith, W.6.

JUNIOR ASSISTANT Required for Chartered Surveyor's City office, some knowledge of measuring building work on site essential.—Write stating experience and salary required to Box 1026, "The Builder."

TAKERS OFF

JUNIOR TAKER-OFF, young active type, for Chartered Surveyor's office, Central London. Excellent prospects, permanent position, five-day week, canteen. State experience and salary required.—Box 1027, "The Builder."

CHARTERED Quantity Surveyor (London, W.1) Requires competent TAKERS-OFF. Highest salary for suitable applicants. Varied and interesting contracts.—Write, stating age, experience and salary required, to Box 190, "The Builder."

TAKER-OFF Required with not less than 2 years' experience in Taking-off. Some unusually interesting contracts. Please state age, experience and salary required.—BASIL A. COHEN, 60 Berners-street, London, W.1.

JUNIOR TAKER-OFF Required by West End Chartered Quantity Surveyor. Salary £800 to £900 p.a.—Reply in writing stating age and experience to Box 979, "The Builder."

TAKER-OFF Required by West End Chartered Quantity Surveyor. Salary £1,000 to £1,200 p.a.—Reply in writing stating age and experience to Box 984, "The Builder."

SENIOR TAKER-OFF Required by West End Chartered Quantity Surveyor. Salary £1,200 to £1,500 p.a.—Reply, in writing, stating age and experience to Box 961, "The Builder."

EXPERIENCED TAKER-OFF Required by Westminster Quantity Surveyors for responsible post. Excellent prospects. Lunch vouchers. Five-day week.—Write stating age, experience and salary required to Box 991, "The Builder."

SENIOR and JUNIOR TAKERS-OFF Required by West End Chartered Quantity Surveyors for permanent staff.—Write, stating age, experience and salary required, to Box 908, "The Builder."

EXPERIENCED TAKER-OFF Required by firm of Quantity Surveyors, Westminster. Starting salary not less than £1,200 and according to qualifications and experience, with good prospects. Salary reviewed regularly. Luncheon vouchers.—Apply Box 933, "The Builder."

TAKER-OFF, Final standard, Required by Chartered Quantity Surveyors, W.C.2 area.—Reply stating age, experience and salary required, Box 709, "The Builder."

SENIOR ASSISTANT Required by London firm of Chartered Quantity Surveyors. Salary up to £1,450 per annum according to age and experience. L.V.s. Five-day week. Overtime paid and pension scheme. —Please apply to Box 791, "The Builder."

JUNIOR TAKER-OFF Required by firm of Chartered Quantity Surveyors in London (A.R.I.C.S. preferred). Salary £750/£950. Luncheon vouchers. Pension scheme. Overtime paid.—Please write, stating age and experience, to Box 792, "The Builder."

SENIOR TAKER-OFF (A.R.I.C.S.) Required for permanent position in office of London Quantity Surveyors. Salary £2,000 per annum. Pension and Life Assurance scheme. 5-day week.—Write, stating experience and age to Box 798, "The Builder."

SENIOR TAKERS-OFF, aged approximately 30 years and TAKERS-OFF aged approximately 25 years, Required by London Quantity Surveyors at their branch office at Epsom. Applicants should be qualified or qualifying and should state age, experience, qualifications and salary required. Normal office hours are 9 a.m. to 5.30 p.m. five days a week. Luncheon vouchers are provided and car mileage allowance is paid for business travel.—Box 777, "The Builder."

EXPERIENCED TAKER-OFF/MEASURING SURVEYOR Required for large civil engineering contract on South Coast near Kent/Sussex border.—Apply, stating age, experience and salary required, to Box 795, "The Builder."

MANCHESTER.—London Quantity Surveyors Require experienced TAKER-OFF for interesting work in the North-West area. Five-day week. Superannuation scheme after trial period.—Box 945, "The Builder."

JUNIOR AND SENIOR TAKERS-OFF and MEASURING SURVEYORS Required in City Chartered Quantity Surveyors' office.—THURGOOD, SON & CHIDGEY, 2 Broad-street Buildings, Liverpool-street, E.C.2.

AUSTRALIA. Vacancies for TAKERS-OFF, see advert under heading "Overseas Appointments."

SENIOR AND JUNIOR TAKERS-OFF Required by Chartered Quantity Surveyors in Bloomsbury with varied practice.—Please reply stating age, experience and salary required, to Box 845, "The Builder."

SENIOR AND JUNIOR TAKERS-OFF Required by London firm of Chartered Quantity Surveyors. Five-day week; pension scheme. Holiday arrangements respected. — MERCER & MILLER F/F.R.I.C.S., 10 Manchester-square, London, W.1. HUNter 0497.

JUNIOR TAKER-OFF Required for busy West End office handling very varied types of contract. The position is a suitable one for an enthusiastic man anxious to gain experience quickly. No Sats. 9.15-5.15.—Write stating age, experience, etc., to Box 994, "The Builder."

SMALL firm of Croydon Chartered Quantity Surveyors Require TAKER-OFF (A.R.I.C.S. preferred). Interesting and varied work. Salary £900-£1,000 according to experience.—Box 1022, "The Builder."

WORKERS UP

WORKER-UP Required by firm of Quantity Surveyors, Westminster. Five-day week and Luncheon Vouchers. Good prospects and opportunities for the right man.—Apply stating age and experience to Box 980, "The Builder."

SENIOR WORKER-UP for London Quantity Surveyors.—Write stating age, details of experience and salary required, to Box 953, "The Builder."

Junior Assistants

required for

ARCHITECT'S DEPARTMENT

of Multiple Retail Firm

An excellent opportunity for training in a career with a future for boys of 16–18 years with G.C.E. or good technical school education. To work in West End until offices move to Bracknell early next year. Fares over 10/- per week paid by the Company.

Apply Personnel Manager, DOROTHY PERKINS LTD., 17, Newman Street, London, W.1. MUSeum 7651.

EXPERIENCED WORKER-UP Required by firm of Chartered Quantity Surveyors in West End, London.—Reply stating experience, age, salary required to Box 931, "The Builder."

WORKER-UP Required. Salary range £620 to £950 according to age and experience. Compulsory superannuation. Five-day week.—Apply R. C. Steel, A.R.I.B.A., Chief Architect, C.W.S. Ltd., 99 Leman-street, E.1.

WORKERS-UP Required, Senior and Junior for office of Chartered Quantity Surveyors in the Holborn area.—Box 913, "The Builder."

PERMANENT vacancy for an experienced WORKER-UP with firm of Quantity Surveyors, Westminster. Five-day week. Luncheon vouchers. Salary according to qualifications and experience and reviewed regularly.—Apply Box 936, "The Builder."

WORKER-UP with at least 2 years' experience Required. Five-day week, luncheon vouchers and pension scheme. Details of age, experience and salary required to F. B. BRYDEN & PARTNERS, 33 Catherine-place, S.W.1.

WORKER-UP Required by Chartered Quantity Surveyors near Holborn. Not less than 3 years' experience. Good salary to the right applicant, also opportunity for promotion. Five-day week. L.Vs.—Write with details to Box 703, "The Builder."

WORKER-UP Required by Chartered Quantity Surveyors near Victoria Station. Salary about £850 according to experience. Luncheon vouchers. Five-day week.—Write full particulars to Box 711, "The Builder."

WORKER-UP for long-term contract at Newport, Mon., Required by firm of Chartered Quantity Surveyors. Rented accommodation available.—Please apply, stating age, experience and salary required, to Box 793, "The Builder."

WORKER-UP. Vacancy in Swansea/Llanelly site offices of firm of Chartered Quantity Surveyors.—Please apply, stating age, experience and salary required, to Box 794, "The Builder."

EXPERIENCED WORKER-UP Required by London firm of Quantity Surveyors. Salary £1,000 per annum. Pension and Life Assurance scheme. 5-day week.—Write, stating age and experience, Box 800, "The Builder."

WORKERS-UP Required, both Junior and Experienced, for Quantity Surveyor's office in South Kensington. Good prospects. Luncheon vouchers. Five-day week.—Box 805, "The Builder."

URGENTLY REQUIRED, two young capable, energetic and enthusiastic WORKERS-UP, for permanent posts in busy South Bucks Branch Office of London Quantity Surveyors.—Box 773, "The Builder."

WORKER-UP Required by LESLIE G. DIGHT, F.R.I.C.S., 35 Portland-place, London, W.1. Salary £700 to £800 p.a. according to age.—Write stating age, experience and salary.

WORKER-UP Required by West End Chartered Quantity Surveyor. Salary £750.—Reply Box 819, "The Builder," stating age and experience.

BIRMINGHAM. WORKER-UP Required by Quantity Surveyor. Future opportunities for Site Measuring and Taking-off. Five-day week. Salary £650 p.a. plus overtime, if required.—Box 835, "The Builder."

JUNIOR ASSISTANT Required by Birmingham Quantity Surveyor for Working-up and Site Measuring. Opportunities for taking-off will be provided in the first year. Excellent scope for advancement. Salary £750 p.a. plus overtime if required.—Box 836, "The Builder."

MANCHESTER. Experienced WORKER-UP Required by professional firm for site office on large industrial contract. Commencing salary up to £750 per annum.—Box 854, "The Builder."

EXPERIENCED WORKER-UP Required by London Chartered Quantity Surveyors with medium-sized office staff.—Please reply giving details of experience, age and salary required, to Box 846, "The Builder."

WORKERS-UP Required by London firm of Chartered Quantity Surveyors. Five-day week; pension scheme. Holiday arrangements respected.—MERCER & MILLER, F/F.R.I.C.S., 10 Manchester-square, London, W.1. HUNter 0497.

JUNIOR WORKER-UP Required in Quantity Surveyor's Department of major London Brewery Company. Progressive and permanent position in R.I.C.S. approved office.—Apply giving full particulars of experience to date, age, salary required, etc., Box 849, "The Builder."

SENIOR and JUNIOR WORKERS-UP Required by West End firm of Quantity Surveyors at their Slough office. 5-day week. Non-contributory pension scheme.—Apply, Box 868, "The Builder."

WORKER-UP Required by London Q.S., about Inter standard. Opportunity for measuring and Taking-off under supervision.—Write, stating age, experience and salary required, to Box 866, "The Builder."

WORKER-UP of two to four years' experience in professional office. Five-day week. Luncheon vouchers.—Apply, in writing, to JOHN McBAIN & PARTNERS, 49/50 Maybury-road, Woking, Surrey.

WORKER-UP Required by small City firm of Chartered Quantity Surveyors. Two years' experience in professional office. Five-day week.—Write, stating age and salary required, Box 871, "The Builder."

EXPERIENCED WORKER-UP Required in London Chartered Quantity Surveyors' office. Must be over 23 years of age with at least four years' office experience of working-up.—Reply, stating age, experience and salary required.—Box 870, "The Builder."

WORKER-UP Required by Central London C.Q.S. Five-day week, L.Vs.—Reply stating age, experience, salary required.—Box 982, "The Builder."

WORKER-UP Required in Chartered Quantity Surveyor's office, Holborn district.—Reply Box 993, "The Builder," stating age and salary.

ENGINEERS

ENGINEER, to take charge of site investigations and soil mechanics laboratory. Required by Consulting Engineers in Westminster. Excellent opportunity for well qualified, energetic man to secure pensionable post.—Box 664, "The Builder."

HELICAL BAR & ENGINEERING CO. LTD.

have vacancies in their Design Office for experienced

ENGINEERS DETAILERS & JUNIOR DRAUGHTSMEN

The heavy demand for Helibond cold-worked reinforcement together with the construction of R.C. Frames, is creating wonderful opportunities for men with initiative, energy and drive.

Salaries offered

Engineers—£1,300 upwards
Experienced Detailers—£1,000 upwards others according to age and experience.

University Graduates will be considered for some of these positions.

5 day week operating—L.V's. This year's holiday arrangements honoured.

Apply in writing giving full details of age and experience to:—

HELICAL BAR & ENGINEERING CO. LTD.
82, Victoria Street, London. W.1.

Structural Engineering ASSISTANT

required with experience in the design and detailing of steel structures and having some knowledge of reinforced concrete work—minimum qualifications Grad. I, Struct. E., or equivalent. The post is pensionable, subject to medical examination. Five day week in operation. Applications giving age, details of previous experience, qualifications and salary required to G. S. Hay, F.R.I.B.A., Chief Architect, Co-operative Wholesale Society Ltd., 1 Balloon Street, Manchester, 4.

THE LONDON FERRO-CONCRETE CO. LTD.

BONUS ENGINEER

Applications are invited for the above position from Work Study Engineers, Surveyors, or other applicants with experience of operating bonus schemes in the building and civil engineering industry.

The successful candidate will be responsible for developing a new bonus scheme for various sites throughout the country.

Applications shall be addressed to

The Contracts Manager,
Maxted Close,
Hemel Hempstead, Herts.

WORK STUDY ENGINEER

required by progressive South London Company of Building & Civil Engineering Contractors. Must have some experience in method study and work measurement, to join a well established team using and supplementing synthetic standards for materials handling, plant, design and pre-tender research. H.N.C. or L.I.O.B standard—age 24-30. Pension scheme—free Life Insurance and assistance with housing if necessary. Please write stating experience and salary required to

Box No. 706 "The Builder"

ENGINEER, capable of designing all classes of reinforced concrete structures. Required by INDENTED BAR & CONCRETE ENGINEERING CO., Ltd., 171 Victoria-street, London, S.W.1.—Apply by letter only, giving full details of experience.

SITE ENGINEER (experienced) Required, capable of setting out for roads, sewers on housing sites, etc. Knowledge of traverse surveys desirable. Permanent and pensionable position to suitable applicant.—Apply, in writing, giving full particulars of experience, qualifications, also age and salary required, to Building Manager, M. J. GLEESON (CONTRACTORS), Ltd., Haredon House, London-road, North Cheam, Surrey.

Applications are invited for appointments to the permanent staff of a major building and civil engineering contractors from

SENIOR PLANNING ENGINEERS

with extensive knowledge of reinforced concrete work and experience of pre-estimate planning and detailed programming of large building and structural engineering works.

CIVIL ENGINEERS

preferably qualified and with good experience of planning, temporary works design and/or experience of heavy civil engineering construction.

The appointments offer excellent prospects with good salary and conditions.

Please send full details to Box No. A.A. 3629, A.K. Advtg., Ltd., 212a, Shaftesbury Ave., London, W.C.2.

ESTIMATORS

ESTIMATOR Required for Small Works Department. Must be fully experienced in Site Measurement all Trades, taking-off and pricing from Drawings and Specifications and preparing Interim Certificates and Final Accounts.—Apply, in writing, stating age, experience and salary required, to GRACE & MARSH, Ltd., New Bridge Works, Waddon, Croydon.

JOINERY ESTIMATOR for factory in N.W. London. Non-contributory pension scheme, canteen facilities.—Details of past experience, present salary, age and copy references to Box 717, "The Builder."

ESTIMATOR Required by FORD & WALTON, Ltd. Applicants must be fully experienced and have a sound knowledge of modern building methods. Employment will be at Stratford, E.15, until January, 1961, when the Company is moving to new head-quarters being built at Wembley Park, Middlesex.—Application, in own handwriting, stating age, experience and salary required, to Personnel Manager, FORD & WALTON, Ltd., Walton House, Warton-road, E.15.

W. J. SIMMS SONS & COOKE Ltd. have a vacancy in their Birmingham office for an ASSISTANT to the ESTIMATOR. The position is permanent and offers scope to a young man with a good Quantity Surveying experience. Superannuation scheme in operative, and successful applicant will be invited to join after satisfactory probationary period.—Apply in writing stating age, experience and salary required to 133 Marshall Lake-road, Shirley Solihull, Warwickshire. Envelope should be marked "Private and Confidential."

SENIOR ESTIMATOR

for Head Office required immediately. Building and Civil Engineering. Capable of estimating Contracts up to £1M. with experience of formulating and settling claims. Age 35 to 50. House available in pleasant surroundings. Superannuation scheme. Salary commensurate with experience.

Apply Managing Director, **W. E. Chivers & Sons Ltd.**, Devizes, Wilts. Telephone No. Devizes 121.

Building Estimator/Surveyor

Opportunity for progressive, energetic, experienced man about 25/35, in substantial Builders/Decorators, Kingston, Surrey. Estimate to final account, including site supervision. Salary range £800/1,000 to commence. Holiday this year. Pension. Send full details in strict confidence to :—

Box. No. 731 "The Builder"

ESTIMATOR/SURVEYOR

Required for small works department of West London Contractors. Age up to 45. Applicants must have at least 3 years' experience small works. Good salary and contributory pension scheme after satisfactory probationary period.—Write with full details and salary required to **Box 479, "The Builder"**

ESTIMATOR

Required immediately, an experienced Estimator for major building works. The appointment is permanent, pensionable and will carry a good salary. Applicants should give brief details of personal history to :—

F. DEFTY, ESQ.,
KIRK & KIRK LIMITED,
Atlas Works, 287 Upper Richmond Road, Putney, S.W.15.

GALBRAITH BROS. LTD.

require

ASSISTANT ESTIMATORS

for permanent and progressive positions at both London and Crayford Offices. Applicants should have sound knowledge of building up prices and would work directly under supervision of Chief Estimator.

ASSISTANT SURVEYORS

for permanent progressive positions at Crayford Office. Applicants should be capable of taking off quantities, site measuring, preparing valuations etc., and should preferably have knowledge of planning and cost control of contracts.

Apply in writing to Crayford Bridge, Crayford, Kent, stating age, experience and salary required.

ESTIMATOR/SURVEYOR Required immediately. Applications are welcomed from young men between the ages of 25-35, who have had a thorough training and experience in estimating for contracts up to £100,000 in value and the settlement of final accounts. A staff pension and Assurance scheme is in operation. Salary £1,000-£1,500 per annum, according to ability.—Applicants should write giving brief details of general and technical education and experience to DEARSLEY & CARTER Ltd., 91/93 King-street, Hammersmith, W.6.

ESTIMATOR SURVEYOR Required by large London Builders. Must have had experience in measuring sub-contractors all trades and dealing with variations. Excellent opportunity for young man with some knowledge of preparation of small estimates. Situation permanent and pensionable, alternative Saturdays free.—Reply stating age, experience and salary required to Box 810, "The Builder."

ESTIMATOR Required by FORD & WALTON, Ltd. Small Contracts Department for estimates up to £25,000. Employment will be at Stratford, E.15, until January, 1961, when the Company is moving to new headquarters being built at Wembley Park, Middlesex.—Application, in own handwriting, stating age, experience and salary required, to Personnel Manager, FORD & WALTON, Ltd., Walton House, Warton-road, E.15.

ESTIMATOR Required by Holborn firm of Builders, pricing to final account. An opportunity exists for the right man to take complete charge under the Directors and to share in the profits.—Replies, in confidence, stating age, present salary, present or former employers, to Managing Director, Box 807, "The Builder."

BUILDER'S ESTIMATOR/SURVEYOR. Mainly estimating for jobs £1,000 to £250,000. Applications for interview to be endorsed "Estimator" on envelope. House available if required.—L. BROWN & SONS, Ltd., 3 Macclesfield-road, Wilmslow, Cheshire.

JUNIOR ESTIMATOR Required for small works department operating from Greenford, Middlesex, carrying out maintenance work and improvements to the group's properties including shops, departmental stores, factories, warehouses, etc.—Write, giving full particulars of previous experience, and salary required, to Box B752 LPE., Romano House, 399/401 Strand, London, W.C.2.

ASSISTANT ESTIMATOR Required by FORD AND WALTON Ltd. Employment will be at Stratford, E.15 until January, 1960, when the Company is moving to new headquarters being built at Wembley Park, Middlesex.—Applications in own handwriting, stating age, experience, qualifications and salary required, should be addressed to Chief Estimator, FORD & WALTON Ltd., Walton House, Warton-road, Stratford, London, E.15.

ESTIMATOR Required for Small Works Department. Must be fully experienced in Site Measurement all trades, Taking-off and pricing from Drawings and Specifications and preparing Interim Certificates and Final Accounts.—Apply, in writing, stating age, experience and salary required, to GALBRAITH BROS., Ltd., 130 Whitechapel High-street, E.1.

ESTIMATOR for Sanitary Fittings. An opportunity to develop specialist knowledge in a progressive field with ALFRED GOSLETT AND COMPANY, Ltd. Previous experience with a Builders' Merchant desirable.—Write, stating age, experience and salary required, to 127/131 Charing Cross-road, London, W.C.2.

ESTIMATING. The part-time services of an ESTIMATOR are Required, qualified to prepare estimates from drawings, specifications and Bills of Quantity.—Please write, or telephone, The Buyer, WILLIAM BROWN & SONS (BUILDERS), Ltd., 3 Keith-grove, Shepherds Bush, W.12.

SENIOR ESTIMATOR Required by London Building Contractor. Must be fully experienced in tendering for all types of works up to £150,000. The successful applicant will be responsible for all the estimating either in competition or the Company's own development schemes. Five-day week. Pension and Assurance scheme in operation.—Apply, stating age, experience and salary required, to Box 891, "The Builder."

SHOPFITTING ESTIMATOR. experienced in all aspects of trade, required.—Write, stating age, experience and salary required, to R. W. WATES & SONS, Ltd., 83/87 Norwood High-street, London, S.E.27.

ESTIMATOR/SURVEYOR

required by progressive firm N.E. London. Excellent prospects for suitable applicant. Apply in writing, stating age, experience and salary required to

Box No. 921 "The Builder"

YEOMANS AND PARTNERS LTD

Require a

SENIOR ESTIMATOR

for Building works up to £100,000 in value. We think the right man for this job should be aged about 30/35 with concentrated experience on this range of contract, preferably with two or three firms only.

The successful applicant would be able to share in the prosperity he creates. There is an annual bonus on results. We operate a non-contributory Pension Scheme.

Please send details of age, early training, positions held and salary range contemplated. Address replies in confidence to Mrs. Wright at **44 Upper Berkeley St., London, W.I.**

CIVIL ENGINEERING ESTIMATORS

A leading building and civil engineering contractor wishes to appoint an additional estimator to the civil engineering department.

Applications are invited from men aged about 35 who have had good experience of estimating for all types of civil engineering construction. The appointment offers excellent scope for progress in an expanding section of a large organisation and has good salary and conditions.

Please send full details to Box No. CE.3617, A.K. Advtg., Ltd., 212a Shaftesbury Ave., London, W.C.2.

YEOMANS AND PARTNERS LTD.

Require an

ESTIMATOR/SUPERVISOR

for alterations and good class decorations. The applicant should be aged about 30 and have had some years of experience with a West End o London Firm.

A high standard of estimating experience and ability to organise contracts up to £10,000 in value is required.

We operate an annual bonus scheme and non-contributory Pension arrangement.

Will applicants please state their age and give chronological list of experience, training and positions held and address replies in confidence to Mrs. Wright at **44 Upper Berkeley St., London, W.I.**

BUILDING ESTIMATOR

A permanent position with an old established B. & C. E. Contractor with an expanding business in the Midlands area covering all types of construction invites applications from Senior Surveyor trained ESTIMATORS. Applications should state, training, experience, age and terms required to, **Wilson Lovatt & Sons Ltd.**, Clarence Street, Wolverhampton.

ESTIMATOR/SUPERVISOR

required for Building and Decorating firm in West Middlesex. Specialising in alterations and decorations up to £5,000. Must be able to work on own initiative. Car driver preferred. Write, stating age, experience and salary required, to:

Box No. 885, "The Builder"

MANAGERS

JOINERY WORKS MANAGER. Progressive and pensionable position offered to person with experience of operating modern methods of management and controlling the manufacture of high quality and purpose made joinery. Applicant will be required to take full charge of old-established Building and Civil Engineering Contractors' joinery department, and must be experienced estimator. Works situated South London area.—Apply stating age, experience and salary required, Building Manager, Box 696, "The Builder."

CONTRACTS MANAGER age 25/35 Required by old-established firm of Building Contractors. Position offers good prospects and is pensionable after probationary period. Qualifications should include some previous experience of site supervision and contracts management and A. or L.I.O.B. or H.N.C. —Write brief details of education, experience and salary required to HAMMOND & MILES Ltd., Scrafton-road Works, Ilford.

OFFICE MANAGER wanted, site near Manchester. 15 months' duration but permanent and pensionable post for right man.—Write, full details experience, age and salary required, Box 822, "The Builder."

TECHNICAL ASSISTANT to Managing Director of small contracting and property development company. Man with good basic experience Required to control outside works. Should have spent part of career as Foreman with reputable company and have proven record of financially successful contracts. Willingness to travel and work in various parts of country suggests a single man in late twenties. An initial salary of £1,000 per annum with annual increments of at least £100 and generous bonus on results will be paid. More important, the successful applicant will not be a cog in a machine, his potentialities with this firm being what he makes them.—Apply, R. CARTON TICKELL, 4 Lion-street, Kidderminster.

MATERIALS MANAGER Required to control and organise material checking department for large Estate Developers on sites mainly in the Home Counties. Experience all materials essential.—Write, giving age, experience and salary required, to the Buyer, McMANUS & CO., Ltd., Mimms Hall-road, Potters Bar, Middlesex.

ASSISTANT Required for Contracts Manager, experienced General Building and R.C. Contracts. S.E. Essex area.—Full particulars, Box 847, "The Builder."

J. M. JONES & SONS LTD.

require

SENIOR

To control **PRODUCTION AND PLANNING DEPARTMENT.** This is an additional and progressive appointment with Staff Pension and Life Assurance, and assistance with housing if necessary. Applicants must have a considerable knowledge of building construction, modern management techniques, mechanical aids to production and, preferably, be Surveyor trained. Apply stating age, details of general and technical education, qualifications if any, and brief details of previous and current employment, and commencing salary required, to the Secretary, **J. M. Jones & Sons Ltd.,** Highway Works, Maidenhead.

Required in South Wales,

BUILDING MANAGER

preferably Carpenter by trade, with the necessary intelligence, education, initiative and drive to start a Branch Office in the Abergavenny/Brecon Area, with a view to handling all Contracts in Wales and adjoining Counties.

Starting salary £1,000 per annum plus bonus.

Apply in writing, giving full particulars to:—

Contracts Director,
WOOLAWAY BUNGALOWS (TAUNTON) LIMITED,
26, Upper High Street, Taunton, Somerset.

BUILDING MANAGER Required by progressive Wiltshire Building Contractors. Must be used to organising labour, measuring for valuation and final account. Prepare working drawings and estimates. Salary £850 to £1,000. Permanent. Pensionable. Accommodation available.—Box 886, "The Builder."

L. A. SMITH (BUILDING CONTRACTORS) Ltd., due to expansion, Require CONTRACTS MANAGER. Commencing salary £1,000-£1,500 per annum according to ability. The position will provide an experienced and ambitious man (preferably with a recognised qualification in the industry) the opportunity to take complete control of the Company's extensive Housing Contracts and be responsible only to the Managing Director. The applicant must be keen, energetic and resourceful, together with a genuine interest in modern Site Development and Building techniques. We are looking for a man who will ultimately qualify for the position of General Manager and a Directorship.—All applications will be treated in strict confidence and should be addressed to:—The Managing Director, L. A. SMITH (BUILDING CONTRACTORS), Ltd., The Oaklands Estate, Barry-road, Oldland, Bristol. Tel. No.: Bitton 3201.

SPECIALIST SUB - CONTRACTOR'S SALES DIRECTOR. Experienced, fully trained Building Executive of about 35 years of age (exprem/um pupil, if possible) who would prefer to specialise, is needed by a long-established firm of specialist Sub-Contractors to take over their Sales Organisation. Experience of dealing with Architects and Quantity Surveyors would be considered an advantage. He should be resident in or near London and be prepared to travel to various parts of the country as occasion may demand. A motor car would be provided and reasonable expenses allowed. The Company have a bonus and pension scheme. The commencing salary offered is £2,000 to £2,500 per annum and a possibility of advancement to Director level is envisaged.—Applications should in first instance be addressed in confidence to Box 1031, "The Builder," and the selected applicants will be interviewed at the Company's Sales H.Q., which are in London.

BUILDING MANAGER

immediately required by

Property Company

to organize and supervise conversions and new building work. Sound experience and organizing ability essential. Good remuneration and incentive offered to competent, energetic and reliable man. Write, stating age and experience, to **Box No. 821, "The Builder"**

Contracts Manager

Required by well known firm of Building and Civil Engineering Contractors, engaged primarily upon large building projects, **to take full control of Contract Manager Department.**

Only young live man fully experienced with zest for work should apply with background of similar experience.

Value of yearly turnover approx. £2,000,000.

Salary up to £3,000 per annum will be offered to suitable candidate. The opportunity of a seat on the Board of Directors after a period of two years is possible.

Write in the first instance stating age, whether married, educational and technical training received, qualifications, and present position held.

Box No. 759, "The Builder"

CLERKS OF WORKS

CLERK OF WORKS Required for new Commonwealth Institute in Holland-park, Kensington (approximate value £½ million), to start in September, 1960. Reinforced concrete construction with large span paraboloid roof.—Apply in writing to the Architects, ROBERT MATTHEW AND JOHNSON-MARSHALL, 24 Park-square East, N.W.1, not later than 23rd August, 1960.

CLERK OF WORKS. New Children's Village, Battle, Sussex. Appointment for first contract may lead to permanent post during 10 year construction period and subsequent post as Superintendent of Buildings.—Write Architects: Sir Hugh Casson, NEVILLE CONDER AND PARTNERS, 35 Thurloe-place, S.W.7.

CLERK OF WORKS Required for 7-floor reinforced concrete office building, commencing shortly in central Leeds.—Applicants should send details of experience, references and salary required, to ANSELL & BAILEY, O.B.E., F.R.I.B.A., Chartered Architects, 12 Gray's Inn-square, London, W.C.1.

CLERK OF WORKS with wide experience will be required shortly for large commercial undertaking in the Manchester area.—Applicants should give references, experience and state own trade, age and salary required to HARRY S. FAIRHURST & SON, F/A.R.I.B.A., 55 Brown-street, Manchester, 2.

CLERK OF WORKS Required immediately for factory contract, approximately 18 months' duration. —Applications to ALEC F. FRENCH & PARTNERS, Pearl Assurance House, Royal Parade, Plymouth, stating full details of experience, and salary required.

YOUNG MAN Required by large residential property company in London area to train as CLERK OF WORKS. Preferably some experience in specification writing, estimating, supervision of maintenance and small works. Early promotion and permanent job for right man. Provident scheme in operation. —Write, stating age, experience, salary required, Box 881, "The Builder."

CLERK OF WORKS Required for Office Building, Islington. Nine months' contract.—Apply giving details of experience and salary required to Box 1028, "The Builder."

BUYERS

ASSISTANT BUYER Required, age 25/30, by well-known firm of London Building Contractors, E.C.2. Must have a general knowledge of the work involved in this department and able to use a typewriter.—Write, Box 858, "The Builder."

REPRESENTATIVES

REPRESENTATIVES already calling on Builders, Contractors, Councils, Required to sell "Bullseye," "Dunlop," "North British" Wellington Boots. Liberal commission.—Write to FOSTERS (PLANT HIRE) Ltd., Granborough, Bletchley.

Woodworking—Works Manager

An excellent opportunity for a first class man aged between 40–50 years to manage the production of woodworking over the three categories

(*a*) Constructional shop-fronts and interiors,
(*b*) Contract furniture and
(*c*) Point of sale display units.

This position, which commands a high salary, is offered only to a fully experienced man who would prove masterly at co-ordinating the production of all items under one roof.

Brief details in the first instance in writing to

The Managing Director,
City Industrial Limited,
139–149 Fonthill Road, N.4.

TERSONS LIMITED

DOLLIS PARK • FINCHLEY • LONDON N.3

In view of several additional projects due to commence in the immediate future throughout the United Kingdom, the following Staff will be required and, accordingly, applications are invited for these posts :—

RESIDENT SITE MANAGERS:

Capable of controlling projects exceeding one million pounds, in value; these projects will be located mainly in the London Area, South Wales, the Midlands and Scotland.
Exceptional Salary and Commission: Excellent Pension Scheme, and Free Life Insurance.
Company car provided and, where necessary, assistance given in respect of living accommodation in all Areas, other than London.

AGENTS:

Capable of controlling projects ranging from £250,000 to £1,000,000 in value.
High Salary and Commission: Excellent Pension Scheme, and Free Life Insurance.
Expenses paid in respect of own car, or travelling expenses. In special circumstances, on out-of-town contracts, Company car provided. Assistance given, where necessary, in respect of living accommodation in all Areas, other than London.

GENERAL FOREMEN:

Capable of controlling projects ranging from £50,000 to £250,000, in value, or, alternatively, assisting Agents on major contracts.
High Salary and Commission: Excellent Pension Scheme, and Free Life Insurance.
Expenses paid in respect of own car, or travelling expenses. Assistance given, where necessary, in respect of living accommodation in all Areas, other than London.

ASSISTANT GENERAL FOREMEN:

Capable of assisting General Foremen and/or Agents on major contracts.
Every opportunity will be given to young and ambitious Trades Foremen who are keen to advance themselves in the Building Industry.
Good Salary and Commission: Excellent Pension Scheme, and Free Life Insurance.
Expenses paid in respect of own car, or travelling expenses. Assistance given, where necessary, in respect of living accommodation in all Areas, other than London.

ENGINEER SUB-AGENTS:

Experienced in Site Control of High Class Reinforced Concrete Structures.
Young, ambitious Engineers will be given every opportunity and encouragement in these positions.
Good Salary and Commission: Excellent Pension Scheme, and Free Life Insurance.
Expenses paid in respect of own car, or travelling expenses. Assistance given, where necessary, in respect of living accommodation in all Areas, other than London.

SITE ENGINEERS:

Fully experienced in use of Theodolite and Level.
Young, ambitious Engineers will be given every opportunity and encouragement in these positions.
Good Salary and Commission: Excellent Pension Scheme, and Free Life Insurance.
Expenses paid in respect of own car, or travelling expenses. Assistance given, where necessary, in respect of living accommodation in all Areas, other than London.

SENIOR ESTIMATORS:

Capable of estimating for projects ranging from £250,000 to several million pounds, in value.
Exceptional Salary and Commission: Excellent Pension Scheme, and Free Life Insurance.
Successful Applicants would operate from the Company's Headquarters, at Finchley.

ASSISTANT ESTIMATORS:

Capable of estimating for projects ranging from £50,000 to £250,000, in value, or, alternatively, assisting Senior Estimators on major contracts.
High Salary and Commission: Excellent Pension Scheme, and Free Life Insurance.
Successful Applicants would operate from the Company's Headquarters, at Finchley.

SENIOR SURVEYORS:

Required for projects ranging from fifty thousand pounds to several million pounds, in value.
Successful applicants would operate from either Head Office or one of the Company's Branch Offices at Birmingham, Cardiff and Glasgow, or, alternatively, will become resident on site.
Exceptional Salary and Commission: Excellent Pension Scheme, and Free Life Insurance.
Expenses paid in respect of own car, or travelling expenses. In special circumstances, on out-of-town contracts, Company car provided.
Assistance given, where necessary, in respect of living accommodation in all Areas, other than London.

ASSISTANT SURVEYORS:

Capable of undertaking surveying responsibilities on projects ranging from £50,000 to £250,000, in value, or, alternatively, assisting Senior Surveyors on major contracts.
Good Salary and Commission: Excellent Pension Scheme, and Free Life Insurance.
Expenses paid in respect of own car, or travelling expenses. Assistance given, where necessary, in respect of living accommodation in all Areas, other than London.

BONUS SURVEYORS:

Successful Applicants would be responsible to Senior Surveyors for the application of the Company's Bonus System on all projects.
Good Salary and Commission: Excellent Pension Scheme, and Free Life Insurance.
Expenses paid in respect of own car, or travelling expenses. Assistance given, where necessary, in respect of living accommodation in all Areas, other than London.

NOTE.—To assist Applicants for these posts, the contracts due to commence in the immediate future include Hospitals, Schools, Public Buildings, Office and Shop Developments, University Projects, Railway Schemes and major Flat Developments.

All applications, which will be treated in the strictest confidence and will only be considered if made in writing, must state history of early training, trade, qualifications, if any, age, previous employers, together with details of projects undertaken in the capacity of the post for which application is being made.

It is essential that this data be given in chronological order.

Considerable opportunity for further advancement exists in respect of each of the above-mentioned positions.

It is imperative that prospective candidates should be persons who relish hard work, with the knowledge that their efforts will be well and truly rewarded, and consider themselves to be extremely energetic, conscientious, progressive and whose general qualities are of such high standard as to fulfil in every sense the requirements of the Company.

All applications for these posts should be forwarded in an envelope marked " Strictly Private and Confidential ", and addressed for the personal attention of the General Manager.

Bowaters

Building Products Division has a vacancy for a

SALES REPRESENTATIVE

in the Midlands area to specialise in "FLEXPIPE" pitch fibre pipes.

Candidates should have specialised knowledge of drainage and piped services, preferably with selling experience through Builder Merchants, Municipal authorities and large industrial undertakings. They should already be living in the Midlands. Preferred age 27 to 38 years.

A Company car is provided and there is a contributory Superannuation Fund.

Applicants should apply in strict confidence stating age, present salary and full particulars of education, qualifications and experience to the Personnel Officer,

Bowater Paper Corporation Limited,
Bowater House, Knightsbridge, London, S.W.1.

EXPERIENCED REPRESENTATIVES,

already calling on woodworking trades and large timber users, required in various areas to sell established line, with large and rapidly expanding potential, of heavy duty fastening equipment, including consumable fasteners. Exclusive territory and generous commission terms offered. State age, experience, territory covered to

Box No. 947, "The Builder"

REPRESENTATIVES already calling on Builders, Estate Developers and Builders' Merchants, Required to sell a range of standard Kitchen Units in London and the Home Counties on commission basis only. —Write, Box 128, "The Builder."

VACANCY for experienced TECHNICAL SALES REPRESENTATIVE with early starting date, for London and Home Counties, introducing and selling to Architects and Builders patented stabilised hardwood. Salary depending on qualification up to £1,000 p.a. plus commission.—Write BARNES & FLETCHER Ltd., 75 Baker-street, W.1. WEL 2891.

AGENTS

SIR LINDSAY PARKINSON Require AGENTS and GENERAL FOREMEN for speculative housing and flat contracts.—Please reply, stating trade and experience, to Housing Director, 6 Lambeth-road, London, S.E.1

SENIOR AGENT Required for long-term building contract, Home Counties. Good salary, bonus and conditions for first-class man with drive and able to work on own initiative.—Apply, JAMES MILLER & PARTNERS, Ltd., Pump-lane, Hayes, Middlesex.

TOP GRADE AGENT/GENERAL FOREMAN Required by National firm of Building and Civil Engineering Contractors for large contracts in Liverpool area.—Apply, stating age, past experience and salary required, to Box 867, "The Builder."

AGENT

A vacancy has arisen for a well qualified civil engineering agent to take charge of a section of work to the value of £1 million forming part of a large heavy civil engineering contract in London.

Applications are invited, preferably from qualified men who have had good experience of general heavy civil engineering construction.

Please send full details to Box No. A.A. 3621, A.K. Advtg., Ltd., 212a Shaftesbury Ave., London, W.C.2.

THE LONDON FERRO-CONCRETE CO. LTD.

AGENTS

Several vacancies now occur, due to rapid expansion, for experienced young Agents able to control the construction of precast and in-situ reinforced concrete structures up to £100,000.

Top salaries will be paid to good men, and there are excellent prospects for promotion to Contracts Supervisor.

Details of age and experience should be sent to:

The Contracts Manager,
Maxted Close,
Hemel Hempstead, Herts.

AGENTS AND GENERAL FOREMEN REQUIRED

Applicants must be fully experienced in high class reinforced concrete structures; able to work to planned programmes and be cost conscious.

Also

SITE ENGINEERS

for setting out,—age between 25 and 30 years. Please apply, with full particulars of experience, past employment, age and salary, to **Box No. 838, "The Builder"**

AGENTS
GENERAL FOREMAN
FOREMAN CARPENTERS
GANGERS

If you are top of your grade in the above positions and have previously and recently carried out large Building Contracts, we have a vacancy for you on one of several large interesting Contracts about to start in the Midlands area. We invite your application and you should give full particulars and what terms you want to, **Wilson Lovatt & Sons Ltd.**, Clarence Street, Wolverhampton.

The Laing Housing Company Limited

have vacancies for

AGENTS AND GENERAL FOREMEN

for large private Housing development schemes throughout England. Applicants should be capable of managing large projects including Roads and Sewers.

These vacancies offer excellent prospects of rapid development in an expanding organisation. Posts are permanent and pensionable.

Apply stating age, experience and qualifications to Personnel Manager (L.H.4) **John Laing and Son (Holdings) Limited,** Page Street, London, N.W.7.

3 top rate

CONTRACTORS AGENTS or GENERAL FOREMEN

required for large Municipal Flat contracts in the London area. Salary no object for first class men.

Box No. 860, "The Builder"

SITE AGENTS
GENERAL FOREMAN
SITE ENGINEERS

Required, experienced in main drainage and sewage works, for contracts in the north of England. Reply, stating age, experience, qualifications, and salary required to:

WM. EAVES & CO. LTD.,
VICARAGE LANE, BLACKPOOL.

BUILDING AGENTS

and

GENERAL FOREMEN

Top grade Agents and General Foremen required for contracts in the Bristol and Bath Areas.

Applicants must be fully experienced, able to work to planned programmes and to be cost conscious.

Please apply, with full particulars of experience, past employment, age, and salary required to:—

Box No. 890, "The Builder"

FOREMEN AND SUPERVISORS

MANUFACTURERS of high-class Joinery Require SITE SUPERVISORS, all areas. Only those capable of producing excellent site work economically need apply for opening with scope for advancement. Pension scheme.—Send full details of experience, age and salary expected, to Box 685, "The Builder."

BUILDING CONTRACTORS, Colchester district, urgently Require ASSISTANT SUPERVISOR. Write stating qualifications.—Box 688, "The Builder."

GENERAL FOREMAN Required for small flat contract, Crayford, Kent.—Apply, RICHARDSON, Herbert House, Slade Green, Erith, Kent.

GENERAL FOREMAN Required for large Municipal flat contract, North Woolwich.—Apply, RICHARDSON, Herbert House, Slade Green, Erith, Kent.

SOUTH WEST ENGLAND

National Contractors invite applications from experienced men for the following positions for their local office.

SUPERVISORS

preferably engineer trained with good experience in the control of a number of medium and large sized reinforced concrete contracts essential, together with knowledge of modern methods of construction and planning.

GENERAL FOREMEN

preferably carpenter trained and with experience in charge of reinforced concrete construction

SENIOR PLANNING ENGINEERS

for pre-estimate planning, detailed programming of Structural and Building contracts, including co-ordination of site planning engineers. All trades, with specialised knowledge of reinforced concrete work.

The appointments will be to the permanent staff and offer interesting and varied work with excellent opportunities for increased responsibility and or advancement to more senior positions with appropriate remuneration.

Please send full details, in confidence to

Box SW3691. A.K.Advtg., Ltd.,
212a Shaftesbury Ave., London, W.C.2.

QUALIFIED CHARGE HAND BRICKLAYERS and CARPENTERS Required for housing contract shortly commencing at Bicester. Charge hands will be required to work and control small gangs and must be able to read and interpret drawings. Accuracy in workmanship is essential. Bonus will be paid on top of gang bonus to those who show ability and give results.—Applications stating age, experience, rate required and when free to F. J. MINNS & CO., Ltd., 9 Westway, Botley, Oxford.

FOREMAN Required to supervise varied jobs in London area, Carpenter and Joiner preferred. Car driver for company vehicle.—Write stating wages, experience, etc., Box 738, "The Builder."

GENERAL FOREMEN Required by Cheshire Contractors for contracts in Manchester and Cheshire. Salaries of £1,100 per annum with permanency and good prospects for first-class men.—Write stating experience and qualifications to Box 737, "The Builder."

GENERAL FOREMAN Required for housing, Camberley area.—State experience and salary required, Box 723, "The Builder."

SHOP FOREMAN Required for management of Manchester Builder's Joinery department and Woodworking Machine shop. Must be thoroughly conversant with architects' drawings, detailing and experienced in setting-out and organising the carrying out of purpose-made, high-class joinery work. Permanent position for suitable applicant with bonus and pension. Give previous experience in detail, age and salary.—Box 724, "The Builder."

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TECHNICAL REVIEW PAGE—345. Place a tick against the number of the paragraph which interests you 1 2 3 4 5 6 7

CUT

ABCD (Raynes Park), Ld. 136
Abix (Metal Industries), Ld. 16-101
Ableson, L. & D., Ld. 81
A.C.E. Machinery, Ld. 34
Acworth Plant Hire 117
Adamite Co., Ld. 63
Adams, R. (Victor), Ld. 112
A.E.I. Lamp & Lighting Co., Ld. 84
Albico Precision Eng., Ld. 58
Allen, J., & Sons (Oxford), Ld. 4
Allerton Studios 134
Allied Ironfounders, Ld. 85
Anderson, C. F., & Son, Ld. 82
Armitage, G., & Sons, Ld. 16
Armstrong Cork Co., Ld. 40
Associated Building Products, Ld. 81

Babcock & Wilcox, Ld. 42
Batty, F., & Smith, Ld. 136
Beeston, J., & Co., Ld. 101
Bennett, S., & Son, Flooring, Ld. 118
Bilston Foundries, Ld. 65
Black Sheathing Felt Campaign 24
Bostwick Gate & Shutter Co., Ld. 49
Bowater Sales Co., Ld. (Bldg. Prods. Div.) 44-45
Bowmaker Group 68
Bowmaker (Plant), Ld. 17
Boyle, R., & Son 107
Braham, Patterson & Benham, Ld. 54
Braithwaite & Co. (Engs.), Ld. 21
British Bitumen Emulsions, Ld. 100-101-102
British Columbia Lumber Mfrs. Assoc. 108
British Cork Mills, Ld. 101
B.I.E.T. 119
British Insulated Callender's Cables, Ld. 10-11
British Plimber, Ld. 27
Broughton Moor Green Slate Quarries, Ld. *349*
Brown, N. C., Ld. 115
Brunnings (Holborn), Ld. 115
Builders' Est. Service, Ld. 133
Byrd, A. A., & Co., Ld. 77

Contracts 87
C. & S. Construction Co., Ld. 105
Carter (Brockley), Ld. 118
Carter Industrials, Ld. 100
Caswell Cranes & Erection, Ld. 117
Cawoods 98
Cayless Bros., Ld. 114
Central Flooring Co. 118
Chalmer, E. 98
Chimneys, Ld. 99
City Veneering Mills, Ld. 54
Cloke, Geo. E., Ld. 101
Commerce Factors (G.B.), Ld. 54
Compentrad, Ld. 112
Contractors' Services, Ld. 116
Cope & Co., Ld. 106
Cox, H., & Sons, Ld. 117
Cox, P., & Partners, Ld. 105
Cradle-Scaff, Ld. 101-105-106
Crane, Ld. 22
Crockatt, W., & Sons, Ld. 58
Croggon & Co., Ld. 100-101
Crosby & Co., Ld. 57
Cuprinol, Ld. 49

Dalton, Ballard & Co., Ld. 115
Damp-proofing, Ld. 107
Danaura, Ld. 99
Dandridge, A. F., Ld. 114
Dawson, W. A., Ld. 84
Decorative Painting Contractors, Ld. *Cover*
De Gay Flooring, Ld. 102
Delta (Plant), Ld. 60
Dickens, S. B., Ld. 73
Doe, E., & Sons, Ld. 115-116
Drynamels, Ld. 26
Dunkley, G. 103
Dunlop Tyre & Rubber Co., Ld. 62

Elgood, E. J., Ld. 102-104
Ellis School of Building 119
Elstree Engineering Services, Ld. 74

Advertisers' Index

Essex Steel Scaffolding Co., Ld. *352*
Evode, Ld. 5
Excel Asphalte Co., Ld. 99
Expandite, Ld. 99-101-104-114

Falkus Bros., Ld. 66
Farr, Edward, Ld. 106
Farrar, E., Ld. 104
FEB (G.B.), Ld. 7-9
Federation of Master Builders *352*
Felts & Damp Courses, Ld. 59
Ferodo, Ld. 12
Finlock Gutters, Ld. 59
Fitton, S. & J. (Tarpaulins), Ld. 106
Fixings Co., Ld. 119
Fletcher & Dixons, Ld. 18
Flexpipe, Ld. 83
Fluid Glass Products, Ld. 101
Frankipile, Ld. 8
Furse, W. J., & Co., Ld. 106

Gas Council *Back Cover*
G.C. Construction Flooring Co., Ld. 102
GEM Electrical 114
General Electric Co., Ld. 23
GKN Reinforcements, Ld. 78
Greenwich Pump & Plant Co., Ld. 116-117
Grey, C. C. 101
Gypsum Mines, Ld. 48

Harris & Bailey, Ld. 115
Harris, L. G., Ld. 51
Harvey, G. A., & Co. (London), Ld. 6
Helical Bar & Engineering Co., Ld. 46
Henderson, P. C., Ld. *350*
Heywood-Helliwell, Ld. 20
Hirschhorn, E., & Co., Ld. 99
Holt, B., Ld. 101
Hook's Joinery Works, Ld. 119
Hope, H., & Sons, Ld. 70
Housden, G. & H. 119
Hy-Rib Division, Truscon, Ld. 104

Imperial Chemical Industries, Ld. 32-53
Inst. CoW 135
Inst. QS 119
ICS 119
Industrial Pumps, Ld. 113
International Boilers & Radiators 29
Ivanhoe Fencing Co., Ld. 101

Jablo Plastics Industries, Ld. 49
James Joinery 117
Johnson, C. H. (Mach.), Co., Ld. 98

Kango Electric Hammers, Ld. 55
Kay & Co. (Engineers), Ld. 41
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Kenyon, W., & Sons (Meta Mica), Ld. 109
Key Engineering Co., Ld. 36-37
King, J. C., Ld. 115
Kittridge Flooring, Ld. 118

Leander Products, Ld. 101
Lillington, G., & Co., Ld. 13-90-106
Liner Con. Mach. Co., Ld. 61-113-136
Lockwood, R. W. 118
London Association Builders' F. and C.O.W. 120
London Flooring Co. 102
Lumenated Ceilings, Ld. 89
Luxfer, Ld. 18-104

Macnamara, J., & Co., Ld. 114-117
Magart, Ld. 102
Marley Concrete, Ld. 81
Marley Tile Co. 72-80
Martyn, B., Ld. 101
Masonite, Ld. 86
Maxwell, A., Division 111
Metway 60
Micanite & Insulators Co., Ld. 76
Milner 57
Minton Hollins, Ld. 106
Moore's Plant, Ld. 116-117
Morris, M. A., Ld. 67
Mullen & Lumsden, Ld. 64

New Stone & Restoration, Ld. 105
Nicoll, Dawson & Humphries, Ld. 100-105-117
Northern Polytechnic 120

Oddi Asphalte 99
Olsson, M. (Fibre Boards), Ld. 25
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Ornamental Gate Co. 109

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Paragon Glazing Co., Ld. 110
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Peglers, Ld. 111
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Record Tower Cranes 109-113
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Sealocrete Products, Ld. 30
Semtex, Ld. 71
Shapland & Petter, Ld. 102
Shot Blasting & Metal Spraying Co., Ld. 118
Simpson, A. F., Ld. 114
Sitefinders, Ld. 135
Site Survey Co. 133
Skinner, W. A., & Co., Ld. 101
Sloggetts (Plant Hire) 117
Smith, H. V., & Co., Ld. 99
Southern Asphalt, Ld. 99
Southern Lime Association 76
Spencer, Lock & Co., Ld. *348*
Standard Range & Foundry Co., Ld. 2
Stephens & Carter, Ld. 100-104-105-116
Stevens & Adams, Ld. *352*
Stuarts Granolithic Co., Ld. 110
Surfex Flooring Co., Ld. 31
Symes (Plant), Ld. 117
Szerelmey 106

Taylor, J. (Syston), Ld. 115
Taylor, W. (Belmont), Ld. 119
Technicrete, Ld. 112
Thorn, J., & Sons, Ld. 60
Thornton, Wm., & Sons, Ld. 52-102
Tile Floors (Ind.), Ld. 76
Timber Development Ass., Ld. 47
Tomo Trading Co., Ld. 107
Topping & Leggat 100
Tradex Meter Co., Ld. 115
Tretol, Ld. 3
Tretol-Servicised, Ld. 19
Trianco, Ld. 16

Vauxhall Motors, Ld. 39
Velux Co., Ld. 50
Viceroy Sales, Ld. 116

Wachal Flooring Co. 118
Wade Wilton, E., & Son 100
Walker, Crosweller & Co., Ld. 69
Ward, Thos. W., Ld. 75
Warry Engineering, Ld. 61
Williams & Williams 33
Williamson, Jas., & Son, Ld. 35
Wilmerlea (Wheels & Castors), Ld. 114
Winterburn, F. A., Ld. *351*
Woolliscroft, G., & Son, Ld. 48
Wottons (Croydon), Ld. 52
Wright, W. S., Ld. 114

Youngman, W. C., Ld. 28

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